

Stereo Review

DECEMBER 1985 • \$1.95

LAB TESTS: THREE TOP TURNTABLES

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AKAI TAPE DECK
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AND MORE

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AUTO REVERSE



by Christie Barter and Gordon Sell

BALANCING TRADE

Sony, one of the Japanese firms now manufacturing in the United States, has recently expanded its factory in San Diego, California. Now in production at the factory is Sony's new line of 27-inch TV monitor/receivers destined for the American market and for export. The countries to which the units will be exported include Japan.



MUSIC-VIDEO CLIPS

Bob Dylan has completed two promotional videos, *When the Night Comes Falling from the Sky* and *Emotionally Yours*, from his latest album, "Empire Burlesque."

Vestron MusicVideo and Dick Clark Productions are producing a series leading off with "Dick Clark's Best of Bandstand," containing footage never before seen in its entirety since the original Bandstand telecasts. Highlights include Bill Haley performing the legendary *Rock Around the Clock* and Chubby Checker doing the Twist. All of the audio tracks have been digitally remixed. . . . Also from Vestron comes "Comedy Music Videos," a compilation of rock-oriented comedy sketches. . . . The public-television series *Rockschool*, demonstrating the skill of music making in a variety of pop styles, enters its final weeks with programs on funk, with Larry Graham of Sly and the Family Stone and Nile Rodgers and Bernard Edwards of Chic (week of November 24); reggae, with rhythm masters Sly Dunbar and Robbie Shakespeare (week of December 1); and "The Future," with the Police, Carl Palmer of Asia, and Siouxsie and the Banshees (week of December 8). . . . A market survey taken

by Scotch brand tape in England has reportedly found that the British consumer spends more on blank video tape than on overcoats, wheat bread, yogurt, household tools, or underpants.

FOR THOSE WHO CARE

Allsop, a producer of audio, video, and disc-care products, has released a technical series of four brochures on preventive maintenance of audio and video equipment and the care of LP records and Compact Discs. The brochures are free from Allsop, Inc., P.O. Box 23, Bellingham, WA 98227.

VINTAGE JAZZ

Fantasy Records is releasing fifteen jazz titles of the 1950's and 1960's on Compact Disc. Artists included in the release, culled from the Riverside, Prestige, and New Jazz catalogs, are Sonny Rollins, John Coltrane, Eric Dolphy, and Bill Evans. . . . PolyGram Classics, digging into the early Verve, Emarcy, and Mercury catalogs, has already released nearly a hundred vintage titles on CD. . . . MCA is set to rejuvenate the old Impulse label, a jazz label of the 1970's that the company acquired from the now-defunct ABC Records. . . . Los Angeles station KKGQ-FM, the city's full-stereo jazz station, is being offered to cable systems for audio programming by United Video of Tulsa, Oklahoma. United has delivered Chicago's leading classical-music station, WFMT, to cable systems since 1979.

TECH NOTES

Bose has a new line of speakers with "Stereo Everywhere," a system that controls the radiation pattern so that you can enjoy a proper stereo image almost anywhere in a room. . . . Look for Acoustic Research's Magic Speaker technology to be used in more affordable models available in 1986. . . . Yamaha's parent company (Nippon Gakki) has introduced two LaserVision video-disc players of its own design and manufacture in Japan. Yamaha plans to introduce them in the U.S. at a time not yet specified. . . . Aiwa and Sony are rumored

to be planning to include built-in PCM digital audio circuits in some upcoming SuperBeta Hi-Fi VCR's for sale in Japan. . . . Sony has a new portable CD player that is smaller than the current D-5.

. . . Marantz and Philips have developed an integrated amplifier with a built-in digital signal processor that can take a direct digital input from a CD player or another digital device. The signal-processing circuits—including an equalizer, a dynamic-range expander, reverb, and others yet to be specified—all operate in the digital domain. All the analog inputs are converted to digital, and conversion back to analog takes place just before the 100-watt-per-channel output amplifier.

. . . Onkyo is rumored to be developing fiber-optic techniques for signal transfer within and between components. . . . Jensen International (including Advent, Discwasher, and Phase Linear) has been put up for sale by Beatrice Foods, which acquired the hi-fi company when it purchased Esmark last year.

CHRISTMAS ITEMS

Mitch Miller and his Sing Along Gang invite VCR households to a "Holiday Sing Along with Mitch" in a new video being distributed by MGM/UA. The suggested retail price is \$29.95. . . . RCA Records has reissued "Elvis' Christmas Album," originally released in 1957 and for many years a collector's item. . . . A number of RCA's country artists are represented on a new "Best of Christmas" album, including Waylon Jennings, the Judds, Alabama, Earl Thomas Conley, and Elvis (singing *Silver Bells*, a title not included in the foregoing Presley collection).



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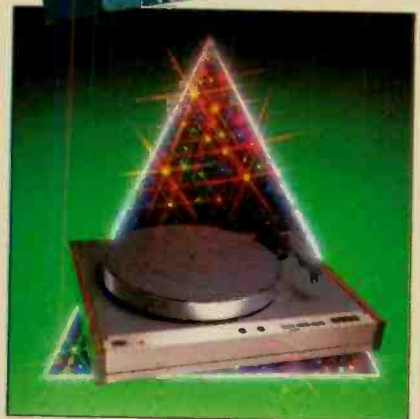
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For a test of the Kyocera P-701, see "Three Top Turntables," page 64.

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SPEAKING MY PIECE

by William Livingstone



Talking with Dame Kiri Te Kanawa

Don't Tax My Tape

IT is axiomatic in the consumer electronics world that the manufacture and marketing of audio equipment is a software-run industry. If record companies have a couple of fallow years, this is soon reflected in lower sales of audio hardware, as everyone found out in the disastrous recession of the late Seventies and early Eighties.

Then when the record companies produced a string of hits from such artists as Michael Jackson, Prince, Bruce Springsteen, and Tina Turner, there was a similar recovery in sales of audio equipment.

It works the other way too. The advent of digital technology and the Compact Disc system has given the record industry its biggest shot in the arm in decades. Last July record company executives were cautiously admitting that in the first half of 1985 they had already sold more than in the entire twelve months of any one of the preceding three years. And it was not just sales of CD's that were up. LP's and cassettes were moving briskly too.

Given the mutual dependence of these two industries, I hate to see them square off at each other to battle over the issue of home taping. Several times in the last few years the record companies have called for a tax or royalty on the sales of

tape-recording equipment and blank tape to compensate for their loss of revenue when people tape records from radio broadcasts or copy records belonging to friends.

It has been established that in writing the current copyright law Congress intended noncommercial home audio recording (including the dubbing of commercial records for private use) to be construed as fair use of copyrighted materials. Hardly more than a year ago the Supreme Court ruled in the so-called Sony Betamax case that using a VCR to record TV programs was also not a violation of copyright.

Nevertheless, legislation has been proposed yet again to collect a tax of 10 percent of the wholesale price of a tape recorder, 25 percent of the price of a dubbing deck, and a penny a minute on blank tape. Consumers, of course, would have to pay this proposed tax or royalty.

I'd like to remind supporters of the tax that we consumers are not the enemy. Just as the record industry and the audio industry depend on each other, both of them depend on consumers. Tampering with us too much is like inflicting an insult on a delicate ecosystem. It might result in including audiophiles and record collectors among the endangered species.

I oppose the tax partly because I don't think it can be fairly administered. How would it be distributed? How much would go to Barbra Streisand, how much to Dame Kiri Te Kanawa, and how much to Madonna? How much to pianist Vladimir Horowitz, how much to Oscar Peterson, and how much to Elton John?

Galling as it may be, record companies should simply accept the fact that they cannot prevent home taping and cannot collect on it. They should stop trying to punish their customers and the audio manufacturers for it.

We hear a lot about the "marriage" of audio and video. Well, like it or not, the audio industry and the record industry are married in a much more real way, and I'd love to see them settle down in domestic tranquillity. I don't want to join the snail darters and the whooping cranes on the endangered-species list. □

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A new generation of Polk Monitors is now available which incorporate the same high definition Silver Coil Dome tweeters and Optimized Flux Density drivers developed for the SDAs. Polk Monitor Series loudspeakers have always had a well deserved reputation for offering state-of-the-art performance and technology usually found only in systems which sell for many times their modest cost. In fact, many knowledgeable listeners consider that other than the SDAs, Polk Monitors are the finest imaging speakers in the world, regardless of price. They have been compared in performance with loudspeakers which sell for up to \$10,000 a pair and are absolutely the best sounding loudspeakers for the money available on the market. Now they sound even better than ever.

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MUSICIAN MAGAZINE

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STEREO REVIEW MAGAZINE

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Polk's revolutionary TRUE STEREO SDA Loudspeakers fully realize the astonishingly lifelike, three dimensional imaging capabilities of the stereophonic sound medium. Stereo Review says "the result is always better than that achieved by conventional speakers." High Fidelity says they're "Mind boggling...astounding and flabbergasting."

Digital Disc Ready

heard by only one ear apiece (like headphones). The revolutionary Polk SDAs are the first TRUE STEREO speakers engineered to accomplish this and fully realize the astonishingly lifelike three-dimensional imaging capabilities of the stereophonic sound medium.

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STEREO REVIEW MAGAZINE

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been transported to the acoustic environment of the original sonic event. Every instrument, vocalist and sound becomes tangible, distinct, alive and firmly placed in its own natural spatial position. You will hear instruments, ambience and subtle musical nuances (normally masked by conventional speakers), revealed for your enjoyment by the SDAs. This benefit is accurately described by Julian Hirsch in Stereo Review, "...the sense of discovery experienced when playing an old favorite stereo record and hearing, quite literally, a new dimension in the sound is a most attractive bonus..." Records, CD's, tapes, video and FM all benefit equally as dramatically. SDAs allow you to experience the spine tingling excitement, majesty and pleasure of live music in your own home. You must hear the remarkable sonic benefits of SDA technology for yourself. You too will agree with Stereo Review's dramatic conclusion: "the result is always better than would be achieved by conventional speakers...it does indeed add a new dimension to reproduced sound."

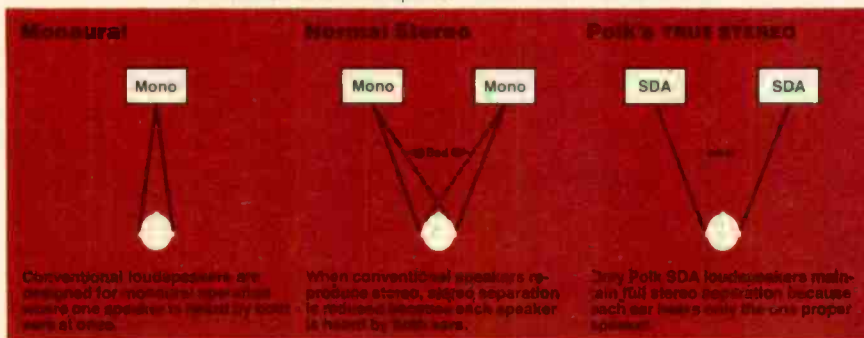
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LETTERS

A-Ha

Thanks for your recognition of the unbelievably detailed video, *Take On Me*, by the group A-Ha in October's "Record Makers." The work in this video should be seen. I think it equals or surpasses the talent shown in the Dire Straits video productions and the feeling in Phil Collins's *In the Air Tonight*. Besides, it's about time a Norwegian group made it onto the scene.

RON SIBERG
Lake Park, MN

A Palpable Hit

Charles Rodrigues has done it again! The more one studies his cartoon on page 36 of the October issue—"Joe, I don't think it's multipath at all. I think it's *you!*"—the sillier and more hilarious it gets. Please, tell us, when Joe marches across a bridge, does he break step?

E. D. HOAGLAN
Omaha, NB

Yes. He switches from march tempo to three-quarter time.

Reconstructing R.E.M.

I want to thank Steve Simels for turning me into a "right-thinking American" with his on-the-mark October review of R.E.M.'s "Fables of the Reconstruction/Reconstruction of the Fables." I'd like to caution him, though, about taking the song titles from the album's inner sleeve instead of from the label. There are twelve tracks, not thirteen as listed in the review—*Auctioneer (Another Engine)* is one song, not two. But the jumbled title sequence on the sleeve is in keeping with the overall inscrutable packaging of the album. My only complaint about "Fables" is that no lyric sheet is included.

MICHAEL BOUNDS
Baton Rouge, LA

Digital Perception

I urge Gary Crighton, whose letter in the October issue explained his resistance to digital audio on the grounds that his "ears and brain work in the analog mode and not the digital mode," to report at once to the nearest medical school for neurological study. He must

be a unique specimen indeed! As all biology students know, the cilia of the inner ear sample the intensity of sound at discrete frequencies and transmit the intensity at those frequencies to the brain via digital pulse trains. The brain itself is a huge network of synapses that can either fire or not fire, and processing by a combination of these binary components allows us to perceive sound.

Mr. Crighton's unprecedented brain structure must lend itself extremely well to the enjoyment of late-nineteenth-century phonographic playback techniques, but I would think it must be ill suited for listening to music that is reproduced from recordings using binary (north/south) magnetic particles on a polymer base.

JOHN ARFT
San Antonio, TX

I don't feel that the intolerance toward each other exhibited by proponents of analog and digital recording/reproducing media is a desirable state of affairs. The general public considers audiophiles to be something other than sane, and it is probably in our own best

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Stereo Review

The picture says a thousand words,
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The new Panasonic VHS™ Hi-Fi Video Recorder.



Feel the excitement of a concert. Or the thrill of a car chase. With this new Panasonic VHS Hi-Fi recorder you don't just hear sound, you experience it. Get incredible sound from hundreds of prerecorded VHS Hi-Fi tapes. Sound reproduced with such richness and intensity, it even rivals the reality of compact discs.

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interests to stick together. After all, what is important is that adherents to both "philosophies" continue to enjoy their respective media. We do not need "missionaries" from either school to convince the other of its folly.

PHILLIP L. ROSLANIEC
East Grand Rapids, MI

Sales and Integrity

I take great exception to Chris Albertson's statement in the October "Video Basics" column that "Most sales clerks will pretend to know more than they actually do. Their only interest is to make a sale, preferably one that will please their boss. . . ."

Does Mr. Albertson think that *all* sales people have zero integrity? As with any profession, there are *some* bad apples, but it is a real slap in the face to high-integrity professional sales people (not "clerks") to be branded in this way by Mr. Albertson's rude and condescending remarks because he had a few bad experiences at some "fly by night" schlock outlets.

VICTOR SUAREZ
Indianapolis, IN

Our apologies to Mr. Suarez and any other professional sales people of high integrity who might have taken offense at Chris Albertson's shopping advice. Serious professionals should have understood that they were not included among those who pretend to know more than they do. Mr. Albertson advised readers to "test the salesperson's technical knowledge by asking questions to which you know the answers" so that they could know whether they were dealing with a professional of integrity or a "bad apple." —Ed.

The Perfect Loudspeaker

Compliments to Daniel Sweeney on his well-researched and stimulating September article, "The Search for the Perfect Loudspeaker." His statement, however, that the famed Walsh driver is "the latest exotic loudspeaker to emerge in the marketplace . . ." gave the impression that it is indeed a late entry in the sweepstakes for the world's perfect speaker.

Correct me if I'm wrong, but the original Ohm F version of the Walsh driver was made commercially avail-

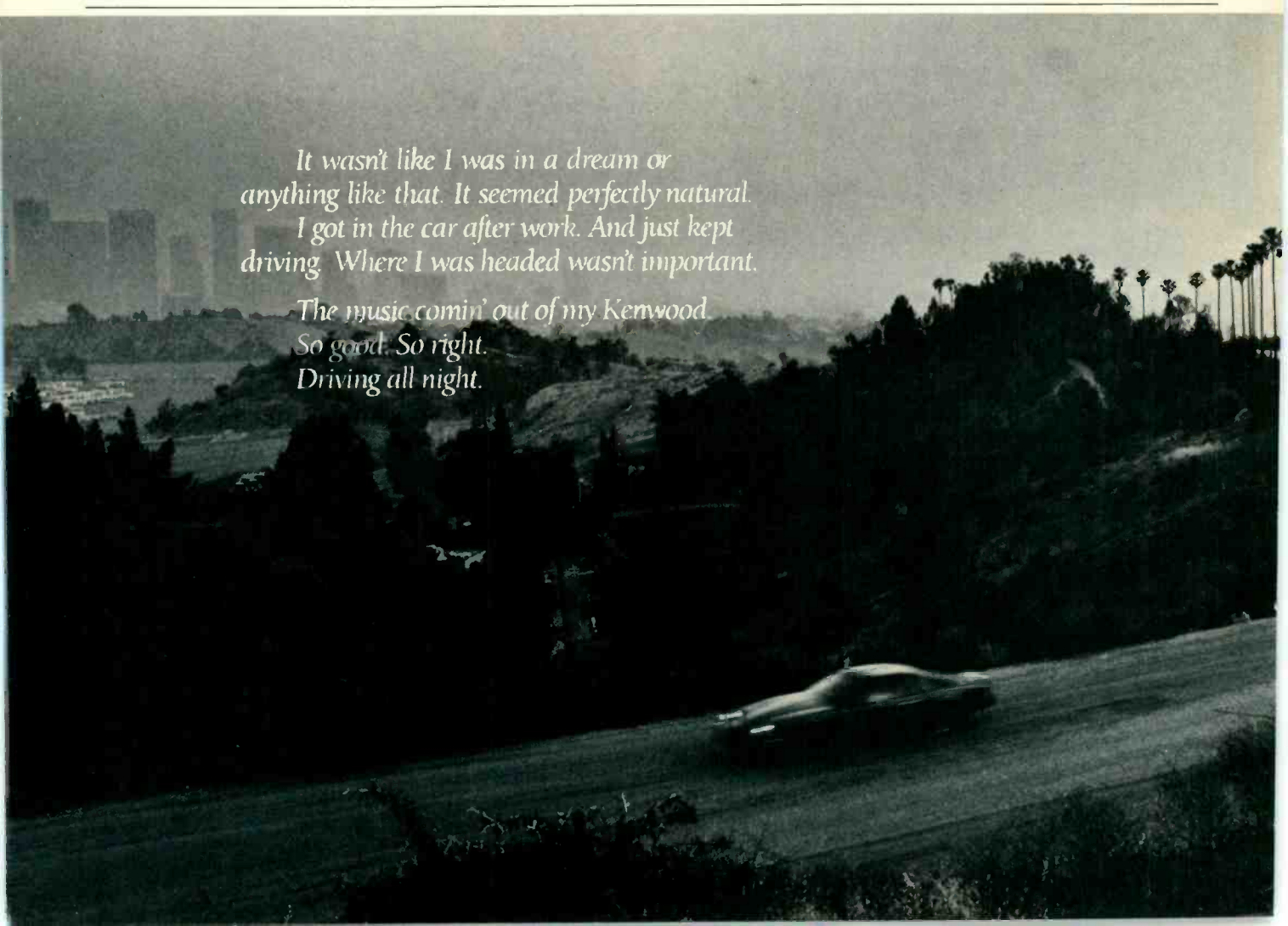
able in 1969. The ongoing research and development in the field of loudspeaker design, and the countless numbers of patented prototypes since then, would probably disqualify the Walsh driver as the "latest" speaker curio.

TEODORO MARTÍNEZ
Arecibo, PR

Technical Editor Gordon Sell replies: *You are correct in saying that the Walsh driver has been with us for some years, but it hasn't been around nearly as long as dynamic, electrostatic, plasma, and ribbon drivers, all of which date back to the first quarter of the twentieth century. In those terms, the Walsh driver is the "latest." The first Walsh-type driver was patented in 1972 and was used in the power-hungry Ohm A. The Ohm F, the first practical Walsh-equipped consumer system, was introduced in 1973, not 1969.*

The Llewellyn Look

William Livingstone's October editorial about Art Director Sue Llewellyn brought well-deserved attention to a job that usually lives only in the shadows. It



*It wasn't like I was in a dream or
anything like that. It seemed perfectly natural.
I got in the car after work. And just kept
driving. Where I was headed wasn't important.
The music comin' out of my Kenwood
So good. So right.
Driving all night.*

was wonderful that you put this hearty praise before your readers. Ms. Llewellyn's work deserves your kudos.

JAMES D. BUTLER
Stuart, FL

As an offset printer, I can really appreciate the true beauty of "the Llewellyn look." Many people don't realize the time and effort needed to put together a magazine of the caliber of STEREO REVIEW. I would like to thank all the talented people involved, from the editors to the printers, for a job well done. Your efforts are appreciated!

GEORGE KORNELAKIS
Parma, OH

Atmospheric Sibelius

If David Hall likes the atmosphere "redolent of Edvard Munch's paintings at their most macabre" in Karajan's recording of Sibelius's *Valse triste* (September, page 185), he should get the Boston Symphony recording of the work by Colin Davis (Philips 9500 893), which was apparently not reviewed by STEREO REVIEW. That album, like those of the same performers' Sibelius sym-

phonies, features a Munch painting on the cover. Perhaps it was a subliminal recollection of the Philips release that inspired Karajan's "video"!

RICHARD E. SEBOLT
Springfield, MA

Short-Weighted CD's

I am an enthusiastic CD buyer, but I have a growing complaint about CD's with only the same amount of music as an LP. I thought that a CD could have up to 75 minutes of playing time—enough to accommodate, for instance, all of Beethoven's Ninth on one disc. Why should operas on CD take the same number of discs as cassettes or LP's? To be fair, I have bought a number of longer-playing CD's, but even these are only 60 to 65 minutes.

JOHN J. PLUTA
Trenton, NJ

There are several one-disc CD versions of Beethoven's Ninth. Delos Records, a Compact Disc pioneer, has launched a series of "Concert Length" CD's with playing times of over 70 minutes. Other companies will undoubtedly follow suit.

The amount of royalties that must be paid to composers, lyricists, and performers is another factor that limits the amount of music put on a disc, tape, or CD that is to be sold at a standard price. —Ed.

Where's Koussevitzky?

I'm floored, flabbergasted, to find Toscanini recordings rereleased on CD and ancient Rodzinski 78's on cassette, along with so much Furtwängler and Stokowski. But where are all the great Koussevitzky reissues? Once in a while David Hall or another critic mentions him, but where are the recordings? Doesn't anyone care?

BOB ANDERSON
Hendersonville, NC

The group of those who care is apparently not large enough to convince record companies that Koussevitzky reissues on CD are economically feasible.

AM Stereo

Isn't it about time we stopped all this stupidity about AM stereo systems?

The opportunity to indulge in the enriching moments of life should never be taken away. That's why Kenwood invented the theft-proof KRC-838—a simple flip of a lever releases the head unit so you can keep it with you. Without losing the preset memory.

Its superior audio features include a high-power amplifier, separate bass and treble controls, 24 station presets, auto-reverse, a 4-channel bi-azimuth tape head for flawless tracking, Tape Scan, Dolby[®] B and C, and a Tuner Call that plays the radio during fast forward or rewind.

The KRC-838. Designed by Kenwood to enhance the finer moments in your life.

For the Kenwood dealer nearest you, call 1-800-CAR SOUND.
*Dolby and the double-D symbol are trademarks of Dolby Laboratories Corporation.



KENWOOD
STEREO FOR YOUR CAR

LETTERS

There is room for both the systems currently in use by radio stations, if only the car stereo manufacturers would follow Sony's lead and offer equipment that can decode both types of signals and thus let the *listeners* decide which is best. Both systems should have a right to compete for listeners' ears. Single-system radios should be outlawed. They cheat the consumer because for a long while both systems will be used by broadcasters.

NORMAN M. BROOKS
General Manager
WKDW-AM/WSGM-FM
Staunton, VA

More Taste Expansion

In September's editorial, William Livingstone stated that if STEREO REVIEW "can be said to have a musical mission, it is to help our readers expand their tastes by encouraging them to listen to the best available recordings of a wide variety of music." It appears to me, however, that a vast subgenre of pop music, the so-called "new wave," is largely ignored by STEREO REVIEW. To be sure, the mainstream acts get re-

viewed, but few bands that don't garner commercial U.S. radio play have been reviewed recently.

If you really want to provide readers an exposure to a broad range of music, delete the reviews of Clapton, Dylan, Jagger, and other dinosaur rockers and review such artists as Blancmange, Cabaret Voltaire, Colourbox, the Colour Field, the Cure, OMD, Section 25, Talk Talk, The The, and so on. Let's face it, those who are interested in forty-year-old-plus rockers will buy their releases regardless of the quality. New music gets so little exposure outside of college radio stations. These acts could use the exposure, and so could your readers.

TOM ZIMMER
Tonawanda, NY

Reba McEntire

I want to send a big thank you to all of you for the great story on Reba McEntire in the August issue. Alanna Nash deserves a special thank you for her very honest portrayal. The photographs were excellent too.

Reba's talent is absolutely unlimited,


and she will always be one of country music's brightest stars. She knows what "real country" is and sings it. In today's hodgepodge of country rock, contemporary country, etc., she shines like a brilliant beacon, and that's a rare treat these days!

LINDA J. MINNECI
Lanesboro, MA

Mechanical Noise

With all the recent attention to the sonic performance of hi-fi VCR's, I wish to point out a problem. I recently purchased a Beta Hi-Fi unit and quickly discovered that even from many feet away I could hear a mechanical motor noise during quieter musical passages. I have consistently noted the same type of rather loud mechanical noise in many other models. I understand that a certain amount of mechanical noise is unavoidable with all motor-driven devices, but other high-quality audio equipment has never made noise audible from more than a foot away.

Audio magazines have never commented on this unpleasant VCR noise, and I feel they are doing their readers a



What other audio tapes fail to hear.

disservice by not alerting them to it. Since sonic excellence is audio's ultimate goal, audible imperfections, whether electronic or mechanical, should be mentioned in equipment reviews.

RICHARD W. DOROSH
Ocean Springs, MS

With all the Digital Debate in the letters columns of STEREO REVIEW, I have yet to see any mention of what I consider to be the most serious shortcoming of the Compact Disc format: the mechanical noise of the players themselves. It does little good to have noise-free software when the hardware generates noise that can be very obtrusive during soft musical passages or between selections. No test report I have read has rated the mechanical noise level of any CD player. I think this is a serious omission. A good CD player should make no more noise while in operation than a good turntable.

MIKE HUFF
San Diego, Calif.

Technical Editor Gordon Sell replies: Our test reports do make critical mention of any unusually loud mechanical

noises from audio components, whether from noisy cooling fans, squeaking tape drivers, humming amplifiers, or spinning tape drums on VCR's. Some mechanical noise is unavoidable with mechanisms that rotate at high speeds like those in CD players, VCR's, and video-disc players, but excessive noise generally indicates that something is wrong. If you have a machine that seems very noisy, have it checked by a qualified technician.

Digital Calling

Somehow, perhaps through a convoluted thought process, I am able to comprehend the purist audiophiles' objections to the integration of digital technology into audio and video components. These purists should recognize, however, that the use of digital technology permeates more than the inner sanctums of their acoustically perfect listening rooms. For example, it may irk them to know that most of their telephone conversations are converted to nice, clean digital signals (bring on the men in the white coats) for more efficient transmission. In fact, within the

next twenty years analog voice transmission may be (depending on which pundits you want to believe) completely eliminated! I can hardly believe that this revelation (to some) will discourage the purists from ever using the telephone again—or will it?

THOMAS M. WAGNER
Somerville, NJ

CD Quibbles

I have found that many people will not consider buying a Compact Disc player simply because they cannot record on the disc. Others complain that there should be music on both sides of the disc, not just one.

Not being able to record on them never stopped people from buying record albums, and since an entire album of music (or even more) is included on one side of a CD, why complicate things by recording on both sides? The word "compact" explains the purpose of the disc. People should stop complaining about the CD format and simply enjoy its superior sound quality.

ROBERT WOOD
Fredericksburg, Va.

One audio tape is so sensitive it can hear a pin drop.
Or the full crash of a cymbal.

To no one's surprise, it's made by Sony.

Designed with our widest dynamic range ever, the UCX-S can pick up the softest softs you've never heard.

Or the loudest lounds.
Without distortion.*

And since we pack smaller, more uniform particles on our tape, you can pack more music in it.

And go from one extreme to the other.

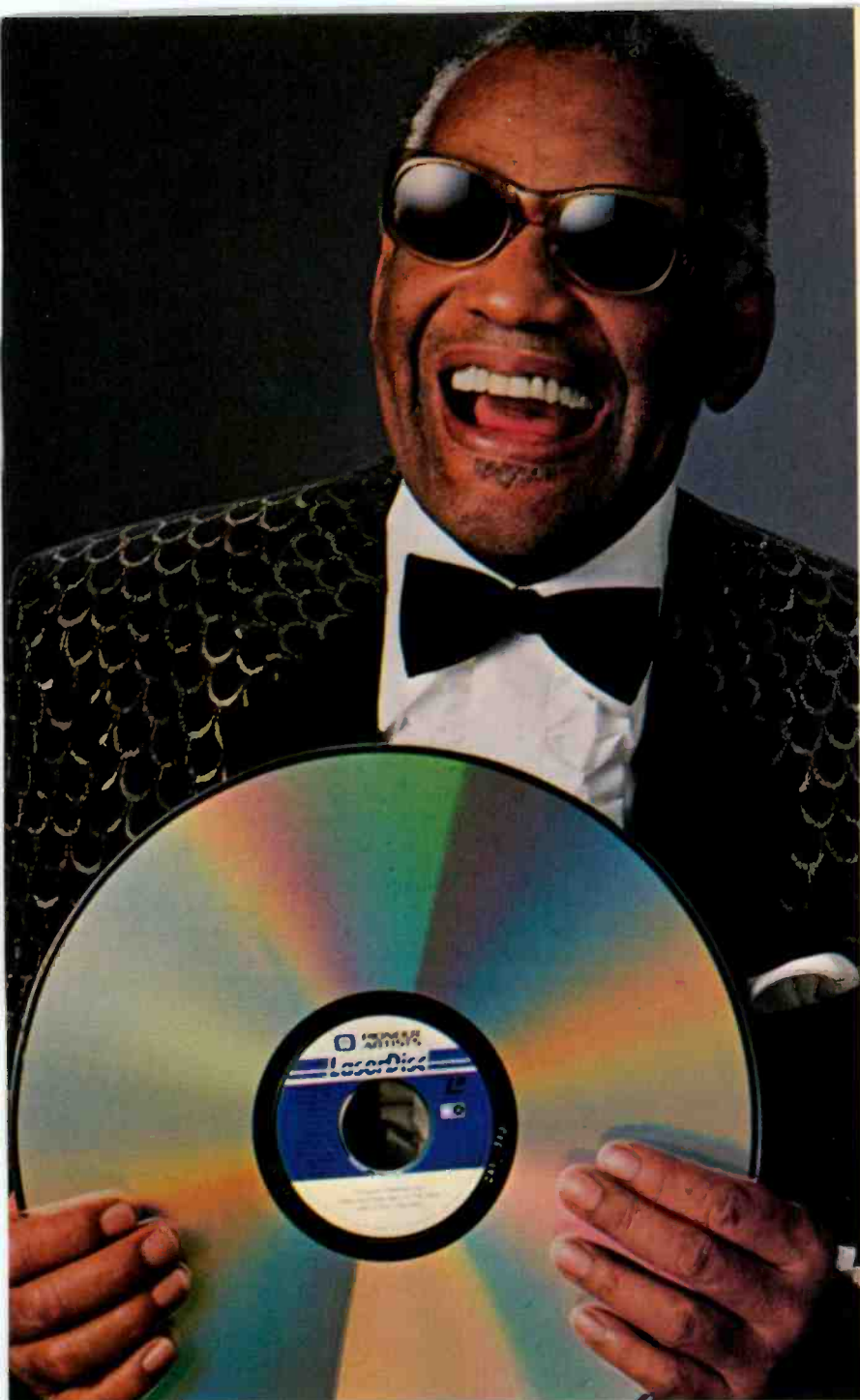
So pick Sony. And hear what you've been missing.



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CIRCLE NO. 53 ON READER SERVICE CARD



How to pick a video system with your eyes closed.

by Ray Charles

"I look at video systems a little differently than you.

I look with my ears.

And, frankly, since the beginning, video has sounded pretty sad.

Then along comes Pioneer with LaserDisc. And suddenly, my ears get very happy.

The sound of LaserDisc is as good as anything I ever heard on my stereo.

Maybe better.

And while I was impressed with the sound, the video experts were floored by the picture. They tell me nothing else even comes close.

Maybe you've already got a stereo, and maybe you've already got a VCR. You've still got to get LaserDisc. Because whatever you're watching — music or movies — LaserDisc does what no other system can do. For the first

time, the best picture and the best sound.

D-900. The world's first combination LaserVision and CD player.

\$999. Suggested retail price.

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PIONEER
Video for those
who really care about audio.

NEW PRODUCTS



Sherwood

The CDP-220 (shown) and CDP-200 Compact Disc players from Sherwood can be programmed to play up to nine tracks on a disc in any order. Both players have headphone jacks with adjustable outputs. Digital filtering with double oversampling is used along with third-order, linear-phase analog filtering. Frequency response for both models is rated at 6 to 20,000 Hz \pm 0.5 dB with harmonic distortion of less than 0.2 percent. The CDP-220 comes with an infrared remote control for the programming, repeat, and display functions, two-speed, two-direction selection scanning, and index scanning. Prices: CDP-220, \$499.95; CDP-200, \$399.95. Sherwood, Dept. SR, 13845 Artesia Blvd., Cerritos, CA 90701.

Circle 120 on reader service card

Sony

The Access 201 audio/video system from Sony consists of a remote-controlled receiver, two three-way flat-piston speakers, and a 27-inch color monitor. The receiver combines a TV tuner with MTS (stereo) and surround-sound decoding, an AM/FM tuner, and a stereo integrated amplifier. The remote unit directly controls the receiver and through it the monitor and any compatible Sony components connected to the receiver, such as a CD player, cassette deck, or turntable, or the video-cassette recorder shown in the photo. (The receiver can switch two VCR's.)

The monitor in the Access 201 system has Sony's Microblack picture tube. Its fine-pitch aperture grille can provide 450 lines of resolution, and the darkened screen tint is said to increase picture contrast by 50 percent over conventional television sets. Price: \$1,799.95. The Access series also includes the Access 101 system, with a 20-inch monitor, for \$1,549.95, and the



Access 301 system, with a complete array of audio/video components, for \$3,599.95. Sony Consumer Products,

Dept. SR, Sony Dr., Park Ridge, NJ 07656.

Circle 121 on reader service card



Acoustic Research

The modular subwoofer in Acoustic Research's Connoisseur series consists of a floor-loaded acoustic-suspension enclosure containing two 10-inch long-throw drivers in separate subenclosures. An optional outboard crossover network enables the subwoofer to be used with AR's Connoisseur series Model 19 or Model 20 speakers. Recommended amplifier power is between 15 and 200

watts per channel. The AR subwoofer's frequency response is said to be flat within 3 dB down to 31 Hz. An input of 2.83 volts produces a sound-pressure level of 84.5 dB at 1 meter. Impedance is given as 4 ohms nominal, 3.6 ohms minimum. Finish is hand-rubbed walnut veneer. Price: \$500; crossover, \$95. Acoustic Research, Dept. SR, 330 Turnpike St., Canton, MA 02021.

Circle 122 on reader service card

A photograph of a sailboat on the water at sunset. The sky is a deep orange, and the water is dark with some whitecaps. The sailboat is silhouetted against the bright sky. The text "A world of flavor in a low tar." is overlaid in white, serif font across the upper portion of the image.

A world of flavor in a low tar.

Merit



SURGEON GENERAL'S WARNING: Smoking Causes Lung Cancer, Heart Disease, Emphysema, And May Complicate Pregnancy.

8 mg "tar," 0.5 mg nicotine av. per cigarette, FTC Report Feb '85

Play the hits. With no errors.

By now, you're probably familiar with the virtues of compact discs. The wide dynamic range and absence of background noise and distortion. And the playback convenience.

Yet as advanced as the medium is, it's still not perfect.

Which is why you need a compact disc player as perfected as Yamaha's new CD-3.

The CD-3 uses a Yamaha-developed tracking servo control LSI to monitor its sophisticated 3-beam laser pickup. This LSI makes sure that horizontal and vertical tracking accuracy is consistently maintained. And that even small surface imperfections like fingerprints or dust will not cause tracking error and loss of signal.

Even more rigorous servo tracking control is provided by a unique Auto Laser Power Control circuit. Working with the tracking LSI, this circuit constantly monitors the signal and compensates for any manufacturing inconsistencies in the disc itself.

Then we use another Yamaha-developed signal processing LSI that doubles the standard 44.1 kHz sampling frequency to 88.2 kHz. This over-sampling allows

us to use a low-pass analog filter with a gentle cutoff slope. So accurate imaging, especially in the high frequency range, is maintained.

We also use a special dual error correction circuit which detects and corrects multiple data errors in the initial stage of signal reconstruction.

So you hear your music recreated with all the uncolored, natural and accurate sound compact discs have to offer.

Another way the CD-3 makes playing the hits error-free is user-friendliness.

All multi-step operations like random playback programming, index search, and phrase repeat are performed with ease. And visually confirmed in the multi-function display indicator.

And the wireless remote control that comes with the CD-3 allows you to execute all playback and programming commands with the greatest of ease.

But enough talk. It's time to visit your Yamaha audio dealer and tell him you want to play your favorite music on a CD-3. You can't go wrong.

Yamaha Electronics Corporation, USA, P.O. Box 6660, Buena Park, CA 90622



YAMAHA®

CIRCLE NO. 14 ON READER SERVICE CARD



NEW PRODUCTS

Nakamichi

The TD-400 (shown) and TD-300 unidirectional car stereo tuner/cassette players from Nakamichi have single-capstan drive with twin counter-rotating flywheels for more stable tape travel and cog-free d.c. servomotors to minimize wow-and-flutter. Both decks include Dolby B and Dolby C noise reduction and switchable 70- or 120-microsecond equalization for compatibility with almost all cassettes. Quartz-PLL synthesized tuning allows manual, auto-seek, or preset selection of radio stations. The TD-400 has presets for six AM and six FM stations, the TD-300 for five each. The TD-400 has a tape Program Seek feature in fast forward or



rewind to locate the start of the next track, and Auto Play to recommence play after rewinding. It also has a four-channel output with a fader control. Frequency response for the tape sections is given as 25 to 20,000 Hz \pm 3 dB

for the TD-400 and 30 to 18,000 Hz \pm 3 dB for the TD-300. Prices: TD-400, \$475; TD-300, \$390. Nakamichi USA, Dept. SR, 19701 South Vermont Ave., Torrance, CA 90502.

Circle 123 on reader service card



SAE

Cassettes are loaded into a sliding horizontal drawer in SAE's C102 two-

head deck, which is only 3½ inches high. The C102 has both Dolby B and Dolby C noise reduction. All operating

functions, including programmable auto play, stop, and repeat, can be performed with the drawer open or closed. The controls are full-logic, microprocessor-controlled pushbuttons with LED function displays. Bias is set automatically but can be adjusted manually. Elapsed and remaining time can be displayed for four lengths of tape (C-46L, C-60, C-90, and C-120). Frequency response with TDK SA tape is given as 20 to 20,000 Hz \pm 3 dB. Price: \$429. SAE, Dept. SR, 1734 Gage Rd., Montebello, CA 90640.

Circle 124 on reader service card

Advent

The Advent Legacy speaker combines a 1-inch Ferrofluid-filled dome tweeter with a 10-inch long-throw woofer. The polyamide tweeter is designed for a smooth high-end response. Frequency response is given as 42 to 23,000 Hz (no tolerance supplied). The floor-standing speaker measures 26 inches tall. Its base and top are made of pecan wood. Maximum recommended power is 100 watts rms. Price per pair: \$399.90. Advent, Dept. SR, 4136 North United Parkway, Schiller Park, IL 60176.

Circle 125 on reader service card



Proton

The Proton 740 cassette deck has two Sendust heads and includes Dolby B, Dolby C, and dbx noise-reduction systems. With dbx, signal-to-noise ratio (S/N) is said to exceed 95 dB and dynamic range to exceed 100 dB. Dolby C achieves an S/N of 70 dB; with no noise reduction S/N is 53 dB. Elapsed recording time or time remaining on the tape can be shown on the digital display. Automatic functions include zero

stop (rewind ends when the tape counter gets back to 000), a sleep timer, and full repeat or selectable repeat of any segment of a tape. The deck senses the type of tape being used and sets bias and equalization accordingly. The transport controls are all full-logic pushbuttons. Wow-and-flutter is rated as 0.05 percent. Price: \$330. Proton, 737 W. Artesia Blvd., Compton, CA 90220.

Circle 126 on reader service card

by Chris Albertson



Buying a Second VCR

WE may not yet have a chicken in every pot or two cars in every garage, but more and more people are adding a second video-cassette recorder to their home systems. If you have recently acquired your first VCR, you may find it difficult to understand why anyone—least of all you—would need more than one, but there are actually many reasons why you might, and some are quite persuasive. For instance:

- You live in a large house or apartment.
- You need to make copies of tapes.
- You wish to tape simultaneous TV transmissions.
- You value peace in a video-oriented family.
- You wish to upgrade your equipment.

The most obvious reason is living in a large house. If you keep your only VCR in the den or living room, that may not always be where you want to watch a tape. You *could* run cables to a TV set located in another part of your home, but that's an awkward solution even with sophisticated remote-control devices.

While there is ongoing controversy regarding video-tape copying, not all dubbing operations are ethically questionable. Video cassettes are not the most reliable storage medium. Dropping one can damage the case and make the tape unplayable, there is always the danger of tangled tape, and, being a magnetic medium, video tape is vulnerable to accidental erasure. Making back-up copies of irreplaceable tapes is therefore a good practice.

You might also want to duplicate a tape in order to share its contents with geographically distant friends or to perform edits. When I watch television, I always keep a blank tape in the machine just in case something interesting comes up that I'd like to watch again, or in case I have to answer the phone and don't want to miss a scene from, say, *All My Children* (my phones have a tendency to ring at the most inopportune moments). Eventually such a tape will fill up, but if there are segments I wish to keep, I can dub them onto a fresh tape, freeing my "miscellany" tape for reuse.

If you must have an excuse for buying a second machine, there are also some lame ones. While discriminating viewers like to lament the dearth of worthwhile television fare these days, there comes a time for all of us when the cup seems to run over. You won't have to miss one of two simultaneous telecasts if you have one VCR, but a second machine will enable you to capture *both* shows for viewing at your convenience—I said it was a lame excuse. A more valid reason is the preservation of domestic tranquility. Unless you live alone, there will probably come a time when not everyone in the household agrees with your viewing and taping schedule, and having two VCR's should avoid some disputes.

Finally, there is the upgrade excuse, a chance to move on to a more sophisticated VCR, one with such recently introduced enhancements as on-screen programming, higher picture definition, better special effects, and stereo and hi-fi sound—or perhaps to add portability to your video options. Of course, if you opt for a portable machine, you must also be prepared to spend some money on a camera. Portable

or not, unless you wish to give your old machine away, it makes good sense to keep it as your second unit, for the advantages of having two machines far outweigh the resale value of a used VCR.

Having made the decision to buy a second machine, your next step is to select the most practical one for your particular needs. Don't look for answers in the store. You went through the selection process the first time around, but now there are other things to consider, such as the VCR you already own.

To get the most out of a second unit, it makes sense to stay with the same format (VHS or Beta), so let us assume that you are going to end up with two compatible machines. Some duplication of features is unavoidable, but it should be minimized. For example, if your second VCR is going to be used in conjunction with a unit that has audio and video overdub and tape-memory indexing, there is probably no need to repeat these features. On the other hand, you may want both machines to have remote control or to be cable-ready. Think of the second machine as an opportunity to add some of the features you missed on your first VCR.

But if you are happy with what you already have, perhaps your second unit should be a no-frills VCR. If all you want is to be able to copy tapes, you might consider one of the new video-cassette *players*, which are generally less expensive because they lack recording capability. Apropos making copies, be sure to check the video and audio inputs and outputs; most models are well equipped in this respect, but as the prices dip, some of the features we have come to take for granted seem to have vanished. You would not want to bring an inexpensive machine home only to discover that the manufacturer's idea of "no frills" is a machine without audio and video *line outputs*.

Finally, new features and fancy looks are constantly being introduced, so don't worry about keeping up with the technology, because you can't. The future frills and snazzy stylings will be yours in due time, when you buy your *third* machine—unless, of course, at that point you opt for a good book.



CBS COMPACT DISCS.

*It Would Take The Next 30 Pages
To Show You Them All.*



The superstars of Rock, Pop, Jazz, Country, R&B and Classical music are on CBS Compact Discs. For a complete listing of our contemporary or classical music titles, send 50¢ per catalog* for postage and handling to: CBS Records, Compact Disc Dept., 1070, 51 W. 52nd Street, New York, NY 10019.

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CIRCLE NO. 5 ON READER SERVICE CARD



RECOG

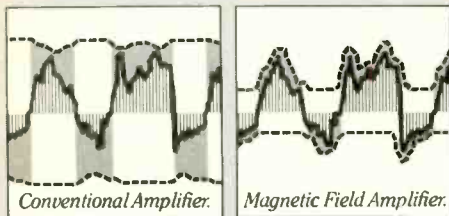
Why the Carver M-500t Magnetic Field Power Amplifier has helped begin an industry trend and how it has stayed ahead of its inspired imitators.



Twice in the last decade, Bob Carver has taught the high fidelity industry how to make amplifiers that give you better performance and value. Both times his bold lead has attracted followers. Still, as evidenced by the current release of the M-500t, Carver sets standards yet unequalled in the audio community.

With its astonishingly high voltage/high output current and exclusive operation features, it is a prime example of why Carver remains the designer to emulate:

- Continuous FTC sine-wave output conservatively rated at 250 watts per channel.
- Produces 600 to 1000 watts per channel of dynamic power for music (depending on impedance).
- Bridging mode delivers 700 watts continuous sine-wave output at 8 ohms.
- High current Magnetic Field power supply provides peak currents up to ± 100 amps for precise control of voice-coil motion.
- Designed to handle unintended 1 ohm speaker loads without shutting down.
- Equipped with infinite resolution VU meters.



Solid line: audio output signal.
Broken line: power supply voltage.
Shaded area: wasted power.
Vertical lines: power to speakers.

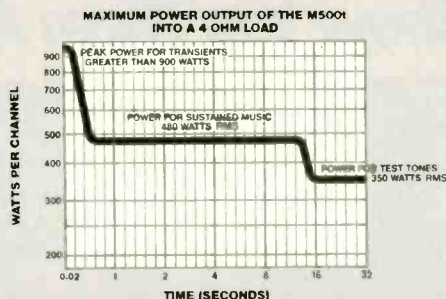
POWER EXPRESSED BY THE DEMANDS OF MUSIC.

The Carver M-500t Power Amplifier responds to musical transients with better than 600 watts per channel of instantaneous peak power through 8 ohm speakers. Well over 900 watts per channel into 4 ohm speakers.

And yet its Federal Trade Commission Continuous Average Power Rating is 250 watts per channel into 8 ohms.

The gulf between the two power ratings represents Bob Carver's insistence that amplifier design should fit the problem at hand. That problem is reproducing music with stunning impact, not simply satisfying a sine-wave test which doesn't even include speakers or sound sources. Hence the seeming gulf between the two ratings.

Bob reasoned that since music is composed of three basic types of power waveforms, those types of waveforms are what an amplifier should be designed to satisfy.



The Carver M-500t delivers massive power at three important output levels.

First there are instantaneous peak transients—the sudden smash of cymbals, drums, or the individual leading edge attack of each musical note. While these waveforms last less than 1/100 of a second, they form the keen edge of musical reality which must be present if you are to realize high fidelity. Though momentary, they also demand a tremendous amount of amplifier power.

Directly following instantaneous transients are combinant musical crests of demand that come from multiple instruments and their harmonics. These long term power demands may last up to several seconds but usually come and go in less than a second. And yet they can tax anything but an exceptionally powerful amplifier.

The third type of power demand is represented by the average power contained in the music, and is approximately one third to one half of the FTC continuous power rating.

At extremely high output current levels, the Carver M-500t not only delivers over 700 watts of instantaneous peak power for instantaneous transients, but can deliver over 600 watts

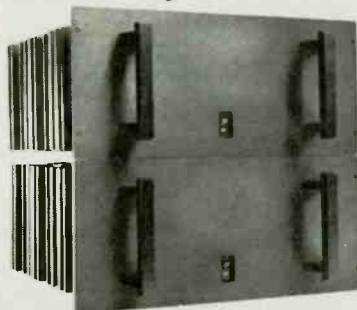
RMS of long term power for demands lasting up to several seconds. The M-500t provides more power, more current and more voltage than any comparably priced amplifier ever offered.

THE MAGNETIC FIELD AMPLIFIER VS. CONVENTION.

Audiophiles, critics and ultimately other manufacturers have each accepted the wisdom of Bob Carver's fresh approach to delivering power in musical terms. Yet only Carver has so elegantly translated theory into practice.

Rather than increase cost, size and heat output with huge storage circuits, Magnetic Field Amplification delivers instantaneous high peak and longterm power from a small but powerful Magnetic Field Coil. The result is an amplifier capable of *simultaneous* high current and high voltage that can do sonic justice to the dynamics of Compact Discs and audiophile records in a compact, cool-running design. An amplifier costing considerably less than the ultra-esoteric models which figured significantly into the genesis of its circuitry. For a reprint of the full story of its development as well as a catalog of Carver high fidelity audio components please call or write to us.

Figure 1



This \$7,000 pair of esoteric amplifiers figure significantly into the heritage of the M-500 "I" version circuitry.

Figure 1 above shows a \$7,000 pair of ultra-esoteric mono amplifiers. No expense was spared on their admittedly magnificent but still conventional design and construction.

Figure 2 shows the massive toroid output transformers contained in these prestigious audiophile designs. At 10% regulation, their output current is ± 50 amperes.

All conventional amplifiers are condemned to using this type of design.

INATION.

Figure 2 also shows the patented Magnetic Field Coil employed in the Carver M-500t. Its output current is ± 100 amps at 10% regulation!!!!

Figure 2



Over 40 pounds of toroid coils put out half the current of a single six pound, four ounce Magnetic Field Coil.

DISTINGUISHING FEATURES OF THE CARVER M-500t.

Power is mandatory for dynamic impact and musical realism. And yet power requires control and finesse. While the Carver M-500t isn't the only amplifier to deliver adequate output, it is one of the few that tempers force with protection circuits beneficial to both the amplifier and your loudspeaker system.

◆ These include DC offset, short circuit power interrupt as well as two special computer-controlled speaker monitor circuits which protect against excessive high frequency tweeter input and an overall thermal overload.

◆ The Carver M-500t continuously displays power output through dual, lighted infinite resolution VU-ballistic meters. Meters which can react to musical transients as brief as 1 millisecond.

◆ The M-500t is quiet. Inside and out. Its circuitry has the best signal-to-noise ratio of any production amplifier. Better than -120 dB. And, in spite of its massive output capability, the M-500t does not require a noisy fan to dissipate heat. Thanks to the cool running Magnetic Field Amplifier circuitry.

◆ No other amplifier in the M-500t's price or power ranges is capable of handling problematic speaker loads as low as 1 ohm. Whether required by certain brands of speakers, or inadvertently derived by pairing too many low impedance speakers at one set of output terminals, all conventional amplifiers simply shut down or blow their fuses when faced with this condition.

◆ In stereo use, both channels of the M-500t can actually borrow from each other during unequal output demands. In addition, Carver amplifiers have pioneered phase inversion circuitry which takes advantage of the in-phase (mono) characteristics of bass to essentially double available power supply current at low frequencies.

◆ Finally, the Carver M-500t can be used in a bridged mode as a 700 watt RMS per channel mono amplifier without any switching or modification.

MUSIC IS THE FINAL PROOF.

Were you to buy a power amplifier solely on features and performance specifications, painstaking comparison would inevitably lead you to the Carver M-500t.

But we are sure that your final judgment will be based on musicality. It is here that the M-500t again distinguishes itself.

Bob Carver has carefully designed the M-500t to have a completely neutral signal path that is utterly transparent in sonic character. The result is more than just musical accuracy. It means a total lack of listener fatigue caused by subtle colorations sometimes exhibited by conventional amplifier designs, regardless of their power rating.

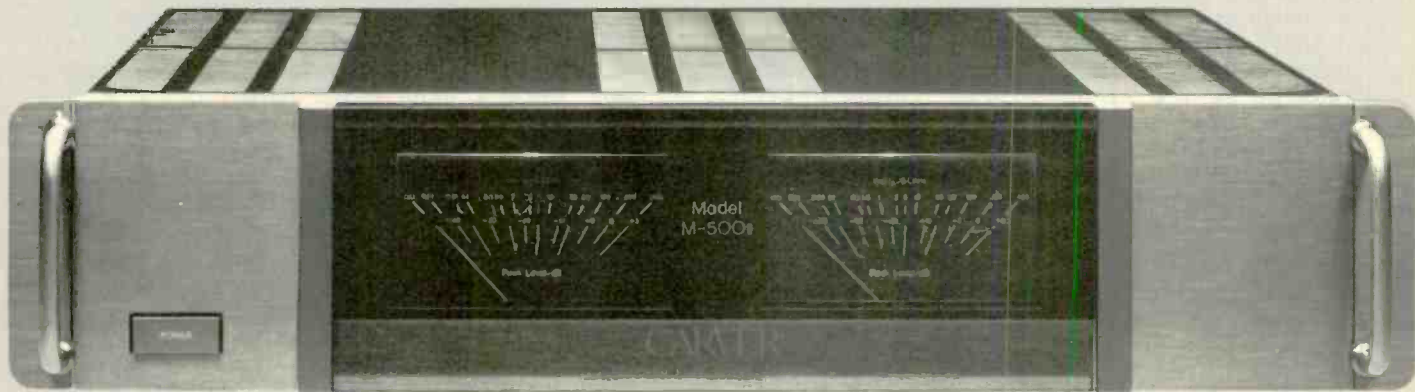
It means a veil is lifted between you and your musical source as the most detailed nuances are revealed with realism, believability and delivered with stunning impact.

VISIT YOUR CARVER DEALER FOR A SURPRISING AUDITION.

We invite you to audition the Carver M-500t soon. Against any and all competition. Including those who are only now embracing the principles which Bob Carver has refined over the last several years.

We doubt that you will be surprised when the M-500t lives up to the claims made in this advertisement. What will surprise you is just how affordable this much power, musicality and accuracy can be.

SPECIFICATIONS: Power, 251 watts per channel into 8 ohms 20Hz to 20kHz, both channels driven with no more than 0.15% THD. Instantaneous Peak Power, 1000 watts into 2 ohms, 950 watts into 4 ohms, 600 watts into 8 ohms. Longterm RMS Power for Music, 500 into 2 ohms, 450 into 4 ohms, 300 into 8 ohms, 1000 watts bridged mono into 4 ohms, 900 watts bridged mono into 8 ohms. Bridged Mono RMS Continuous Power, 700 watts continuous into 8 ohms. Noise -120 dB IHF Weighted. Frequency Response, ± 0.3 dB 1Hz-100kHz. Slew Factor, 200. Weight, 25 lb. Finish, light brushed anthracite, baked enamel, black anodized.



CARVER

POWERFUL

MUSICAL

ACCURATE

JVC KS-RX450

by Julian Hirsch and
Christopher Greenleaf

THE JVC KS-RX450 is an AM/FM receiver and auto-reverse cassette player with an integral two-channel amplifier. The usual car stereo head-unit design with flanking knobs has been abandoned for a flat-face, DIN chassis with vertical slider controls for volume, bass, treble, balance, and fader; all other controls are pushbuttons.

Each of the five station-preset buttons can be assigned to four different frequencies, three FM and one AM, for a total of twenty stations in memory. The buttons are relatively large and internally illuminated. A sixth button in the group, marked BAND, steps the tuner memory sequentially through the three preset FM "bands" and the AM band.

Unlike other receivers we have seen, the KS-RX450 does not require the user to press a separate memory button to store a frequency. Once the frequency is set, the desired preset button is held in for at least 2 seconds, after which its number begins to flash on the illuminated LCD display in the center of the panel. In a few more seconds, the flashing stops and the frequency is memorized.

Above the preset buttons are two buttons marked with arrows. These cause the tuner to scan up or down in the selected frequency band, with tuning increments of 0.1 MHz for FM and 10 kHz for AM. The latter can be changed to 9 kHz for use outside the U.S. by a switch underneath the receiver.

Illuminated arrows show the direction of tape motion when the cassette player is in use. At the upper right of the panel are the fast-forward and rewind buttons, marked with double arrows. Pressing both of these buttons simultaneously reverses the tape direction; this also happens automatically at the end of a side. The cassette is



loaded edgewise, and it begins to play immediately. When the car's ignition or the receiver's power button is switched off, the deck's pressure roller is released, but the cassette is not ejected.

Below the tape opening is the LCD display, which shows the tuned frequency and band, the number of the preset station, and indicators for stereo reception (ST) and the status of the AUTO RECALL (AR) and AUTO SEEK (AS) features. The radio also contains a clock, and a digital time display replaces the frequency for several seconds when the CLOCK button is pressed or while a tape is being played.

When AUTO RECALL is engaged, the radio automatically tunes to the first preset station if the current signal drops below usable levels. If that preset station is also weak, the tuner jumps to the next one, and so on until a receivable signal is encountered or until the AR feature is switched off. The AUTO SEEK system operates similarly except that the tuner scans the band until it reaches a sufficiently strong signal, then stops. The STANDBY function is a useful variation: if it is engaged, when the radio signal strength drops below a certain threshold level for about 10 seconds, the radio output is replaced by the cassette playback. The radio is still functioning, however, and when the signal strength returns to a usable level, the cassette player shuts off and the radio is heard again.

The SCAN button causes the tuner to scan up the selected band until a signal is received or the button is pressed a second time. The tuner pauses on each station for about 5 seconds before proceeding, giving the user sufficient time to press the button and stop the scan if desired. Pressing the MS/LOC button in the scan mode reduces the tuner's sensi-

tivity so that it will stop only on very strong signals (this fact is not mentioned in the instruction manual). The MS function of this button refers to the music-scan feature, which applies only to tape playing. Pressing this button along with the fast-forward or reverse button moves the tape rapidly to the beginning of the next selection or back to the start of the current selection by sensing a silent interval between program segments.

Another dual-purpose button, marked MTL/MO, selects the tape playback equalization (120 microseconds for ferric tapes, 70 microseconds for metal or chrome tapes) and mono or stereo mode when the tuner is in use. Finally, there is a button with a Dolby Labs logo that engages the Dolby B system during tape operation and something called TNCC during tuner operation. The manual explains that TNCC stands for Tuner Noise Control Circuit—more commonly known as interstation noise squelch.

The JVC KS-RX450's audio amplifiers are rated to deliver 8 watts per channel into 4-ohm loads from 40 to 20,000 Hz with no more than 0.8 percent distortion. They also carry a startlingly optimistic maximum power output rating of 22 watts per channel! The unit has line-level inputs and outputs for use with an external equalizer, and the line outputs can also be used to drive an external power amplifier for the rear speakers in a four-speaker installation. Since the power amplifiers are bridged to obtain a higher output, all speaker leads must be isolated from ground.

The KS-RX450 chassis is 7 inches wide, 5 1/8 inches deep, and 2 inches high. Its nosepiece, which contains all the front-panel controls and displays, is 6 1/16 inches wide, 2 inches high, and 1 3/16 inches deep. Price:

\$399.95. JVC Company of America, Dept. SR, 41 Slater Dr., Elmwood Park, NJ 07407.

Lab Tests

The FM tuner section of the JVC KS-RX450 has good sensitivity and selectivity, a satisfactory capture ratio, and excellent AM rejection. Most of its deficiencies, all relatively minor, are commonplace among car radios. For example, its FM distortion was high by the standards one would apply to home receivers, but it is not likely to cause any audible degradation in actual use. The distortion was due in part to a frequency error in the digital tuning system that effectively mistuned every station by about 30 kHz. In a digital-synthesis tuner the user cannot correct for such an error.

The tuner's automatic channel-blend feature makes many of the usual stereo measurements meaningless or even impossible to perform. For example, the unit really has no true "stereo 50-dB quieting sensitivity" since there is a usable amount of stereo separation only with relatively strong signals. Although the stereo indicator came on at 23 dBf (2.4 microvolts, or μV , at the receiver's 75-ohm antenna input), 50 dBf (about 80 μV) was the minimum strength that would give a usable stereo signal. The TNCC (muting) circuit operated gradually and smoothly, reducing both signal and noise as the level dropped from 35 dBf (1.5 μV) to 23 dBf (2.4 μV). The threshold for the STANDBY, AUTO RECALL, and AUTO SEEK functions was in the range of 30 to 35 dBf (8.7 to 15.5 μV). After about 7 seconds at the threshold level, the tuner switched to the next station. The SCAN threshold was set to 55 dBf (155 μV) for normal operation, a reasonable choice for comfortable reception, but with the LOC switch setting the threshold was a high 93 dBf (more than 12,000 μV), which is likely to exclude any stations not within easy sight of the car!

The receiver had a frequency response of ± 2 dB from 20 to 20,000 Hz measured through the FM tuner with the tone controls at their center detents. The channel separation for strong FM stereo signals was typically 20 to 25 dB over the audio range, perfectly satisfactory per-

LABORATORY MEASUREMENTS

FM mono usable sensitivity (75-ohm input): 17.5 dBf (2.1 μV)
Mono 50-dB quieting sensitivity (75-ohm input): 17.5 dBf (2.1 μV)
Tuner signal-to-noise ratio at 65 dBf: 64 dB
Tuner distortion at 65 dBf: 0.95%
FM frequency response (-3 -dB limits): 20 to 20,000 Hz
Stereo separation (at 65 dBf) at 100, 1,000, and 10,000 Hz: 28, 24, and 22 dB
Capture ratio at 65 dBf: 3 dB
AM rejection at 65 dBf: 70 dB
Selectivity: alternate-channel, 74 dB; adjacent-channel, 6 dB
Image rejection: 57 dB
AM frequency response: 22 to 3,200 Hz ± 6 dB
Tape-playback frequency response (standard BASF test tapes,

-3 -dB limits): 120- μs EQ, 32 to 15,000 Hz forward, 32 to 14,000 Hz reverse; 70- μs EQ, 32 to 16,000 Hz forward and reverse

Tape signal-to-noise ratio (referred to 250 nWb/m at 315 Hz, 120- μs EQ): A-weighted, 57 dB; Dolby B and A-weighting, 64 dB; Dolby B and CCIR/ARM weighting, 63 dB

Flutter: $\pm 0.35\%$ CCIR-weighted peak; 0.2% JIS-weighted rms (same in both directions)

Tape-speed accuracy: $+0.5\%$ error at start, $+0.1\%$ at end of C-60 cassette

Fast rewind time (C-60): 125 seconds

Tone-control range: ± 11 dB at 100 Hz; $+9$, -10.5 dB at 10,000 Hz

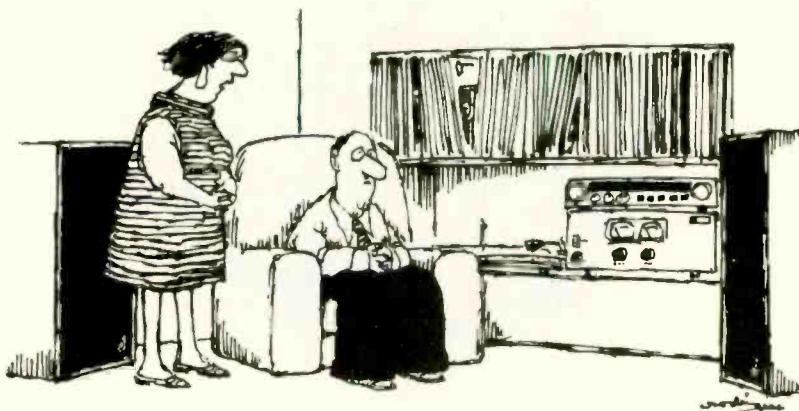
1,000-Hz clipping power output (into 4 ohms): 12.25 watts

formance for a car radio. The tone controls had conventional characteristics and adequate range. The AM frequency response had a peak of about 5 dB at about 30 Hz. Aside from this, it varied ± 1 dB from 24 to 1,500 Hz and was down 6 dB at 3,000 Hz.

The tape-deck frequency response with normal, 120-microsecond equalization also had a bass peak of about 5 dB in the 40- to 60-Hz range but was flat within ± 1 dB from 31.5 to 13,000 Hz in the forward direction. The response was about the same in reverse except that the output was 1 to 3 dB lower over most of the middle- and high-frequency range. With 70-microsecond (MTL) equalization the response was similar but slightly better at the high end, out to 14,000 Hz ± 1 dB.

In general, the JVC KS-RX450 performed at least as well on the bench as other good car stereo receiver/cassette players we have tested. One of the very few operating features it lacks is Dolby C noise reduction, now offered on a number of car cassette decks, but most people will find Dolby B perfectly adequate for their needs. With some aid from the treble tone control, the Dolby B circuits can be used to play Dolby C-encoded tapes.

Much of the strength and weakness of a car unit lies in its human-engineering qualities, and this applies in full measure to the KS-RX450. On the plus side, the replacement of the usual concentric multiple knob controls by separate sliders makes this a very easy receiver to operate. The ease is further



"I don't know that much about stereo, Phil, but to be told by a twelve-year-old boy from next door that you've had the receiver's loudness button off for eleven years—that has to be kind of dumb, Phil . . ."

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CAR STEREO

enhanced by the large, very clearly marked and clearly lit tuner preset buttons. The display does not cram too much information into a small space, making the essential data readily visible to the driver.

The principal minus, from our viewpoint, is that the control panel, while relatively uncluttered, is black, and so are the controls. Many of these are small, thin black buttons that are virtually invisible against the black panel, which is marked in small characters. The problem is not so much in knowing which buttons do what, since that comes with practice, but in seeing whether a button is in or out. We had to determine this by touch even on a well-lit test bench; in a car it might be difficult—and with gloves on, impossible. Some indication of the control settings on the LCD display would be a great help. *J.H.*

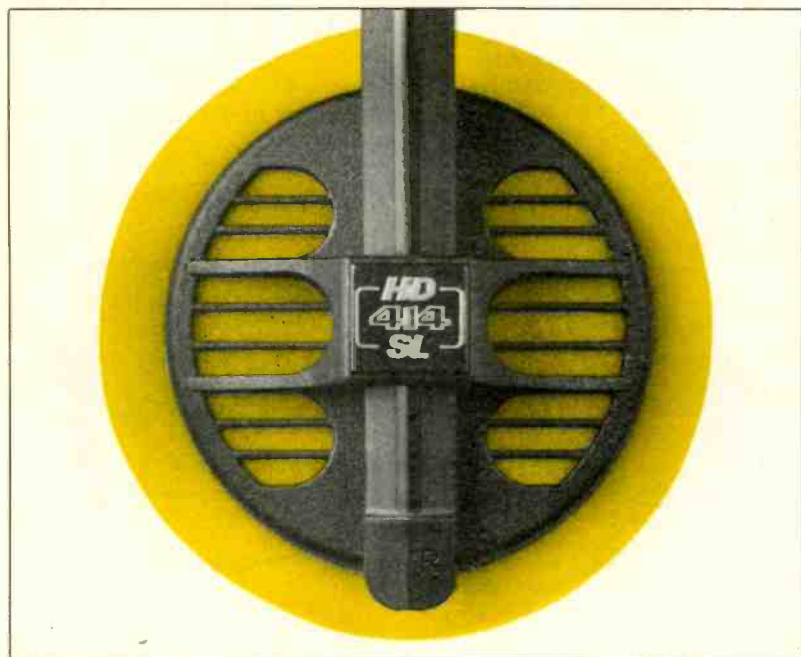
Road Tests

For me, the tag end of warm weather means lots of hours on the road, so when I tested the JVC KS-RX450 in late September, it went along for many miles of urban crawling and several round trips just beyond the listenable range for city FM stations. All this frenetic mileage and the usual couple of times over our Brooklyn test route showed what the receiver could do and how it sounded in my Volvo.

At first glance, the great variety of tuner functions made the KS-RX450 seem primarily a radio listener's choice, an impression borne out by the hours on the road. It has good reach for AM, and the AM sound was fairly noise free—I suspect because of a slight tradeoff of frequency response for quietness. Impulse noises were very little trouble, and I was able to hear more stations over a wider area than I usually get from a car stereo system.

FM reception ranged from decent to good without ever attaining quite the refinement afforded by some high-end receivers. A very fair selection of stations came in no matter where I drove, and my usual New York City stations were audible out to the normal limits of reception. Stereo was reliably received out to the usual 20 miles or so with strong signals, but it was slightly less firm than usual with weak signals both

WHY ARE THESE THE WORLD'S BEST-SELLING HEADPHONES?



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Or your Sennheiser dealer.

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It's amazing what happens to sound once you get it out of a box.

In the small town of Struer, Denmark, you'll find the most advanced speaker research center in Europe.

There, the designers and engineers at Bang & Olufsen are dedicated to creating ways that improve the way you listen to music.

Now, Bang & Olufsen has created a new series of speakers that eliminates the "boxy" sound found in conventional speakers that are shaped like boxes.

Of course, as with all speakers, the best way to judge them is to listen to them.

Short of that, you can begin to appreciate the RL Series by thinking about what makes a good listening room.

The worst possible listening room is one where all the dimensions are the same. The resonance caused by reflections and the inherent soundwave reinforcement distorts music.

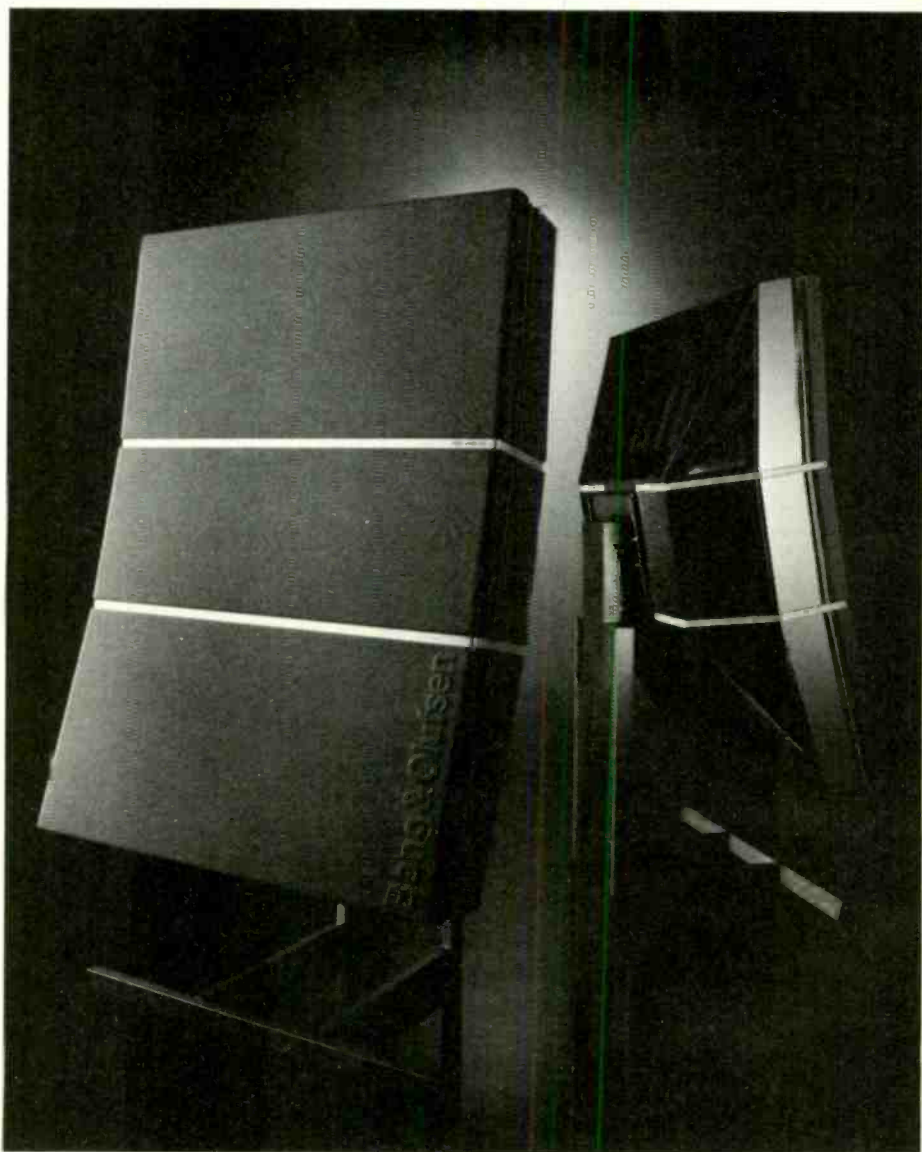
That's what happens inside a speaker shaped like a box.

Parallel walls within the speaker amplify and distort certain frequencies. This blurs the sound.

Although this fact has been known for some time, to date the problem has only been solved by the most costly systems.

The RL Series Speakers are an affordable solution to the problem.

The unique shape creates a series of non-parallel surfaces. So, like a concert hall (a room with non-parallel surfaces), the result is a pure, undistorted, "open" sound.



This shape, the material, and the internal construction have allowed us to eliminate the cabinet resonance and rear sound dispersion you hear in box type speakers.

In terms of capability, RL Series Speakers accurately reproduce an extremely wide range of music. Including the kind that's found on compact discs.

We could go on and on. But why listen to us when you can actually listen to a pair of RLs.

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Bang & Olufsen
of Denmark

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AKG headphones
range in price from
\$45 to \$195*;
cartridges from \$50
to \$1000.*
*Suggested retail price.

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CAR STEREO

at night and at midday. The fifteen available FM presets invite having regular stations in more than one driving area, by no means a common option yet with car receivers.

The three selectable functions that automatically replace a poor signal—AUTO SCAN, AUTO SEEK, and STANDBY—will doubtless be welcome to many listeners who do a lot of driving. The only difficulty with them is that the control buttons are shared with other tuner and tape functions, so they must be reset frequently, diminishing the convenience of the various automatic operations.

The slider controls for volume, tone, and balance work well. A fumbling user is not likely to get any rude sonic surprises from them, and all except the volume slider have center detents to give some tactile feedback for setting them without taking your eyes off the road. The panel illumination is excellent, but it is exceedingly difficult to tell when certain controls (Dolby, mono mode, tape type, etc.) are engaged because no visual status indication is provided. The buttons themselves are too small to be able to tell their engaged status easily from looking at their positions.

Forward tape playback was fairly steady and had acceptable high-frequency response. Reverse play, however, showed mild to obvious wow-and-flutter and an irregular treble response that was especially apparent in choral music. The disparity was very clear from one test tape I made on which I dubbed the same choral pieces at the same levels on both sides of the cassette. Touching the program-reverse buttons gave me instant comparisons of the performance in the two directions of tape travel. If, like me, you prefer to switch cassette sides manually, the less perfect reverse performance of the KS-RX450 is unimportant, but I wouldn't suggest using its autoreverse capability to play tapes with steady chords and long passages of harmony.

All in all, I'll stick with my first impression that this car unit is a radio lover's choice. For raiding the air waves as you drive along, it has a lot of handy features and generally good performance.

C.G.

Circle 146 on reader service card

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When your products are already recognized as the finest in their categories, you don't need to make drastic changes every year. So instead of radical reconstruction, Denon products undergo thoughtful refinement.

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The Denon DRA-755 AM/FM Receiver now incorporates complete audio/video switching and an external processor

loop to let you create a fully integrated home entertainment system.

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So the next time you react about components that are "completely new," be skeptical. You don't have to go back to ground zero when you build something right in the first place.



DENON

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KEMP MILL RECORDS (Baltimore/Washington)	SOUND SHOP
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LICORICE PIZZA	SPEC'S MUSIC (Florida)
LISTENING BOOTH/WALL-TO-WALL SOUND	STREETSIDE RECORDS (Missouri)
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by Larry Klein



B.I.C. Repairs

Q I have a B.I.C. turntable that gave good service until recently. When I took it in to a local audio shop for repairs, they said B.I.C. is no longer in business and that parts are not available for B.I.C. products. Is this true?

CHARLES MONTGOMERY
Cedar Rapids, IA

A Half true: B.I.C. is out of business, but parts and service for B.I.C. turntables and speakers are available from the South Street Service Company at 202 South Street, Oyster Bay, NY 11771. The company is run by B.I.C.'s former national service manager, who should certainly be able to fix any B.I.C. product worth fixing.

The Reality of Perceptions

Q I don't understand how you can consistently deny the audible effects of special cables, capacitors, and so forth when thousands of audiophiles have heard the difference they make. Why do you continue to deny reality?

NICHOLAS GILFANO
Reno, NV

A You have brought up a matter that has long been dear to my heart: how we perceive reality. There is a tendency of the human senses—even among adults—to fulfill their owner's expectations. Have you ever accidentally picked up someone else's drink at a party? For the first sip, before *objective* reality gets through, the *subjective* reality for most people is the taste they expect. Those who really *want* to hear an improvement as a result of changing

cables or capacitors, or from nailing their speakers to the floor, probably will hear one.

If I am "denying reality," it's only the subjective reality of those who claim to hear positive effects from products and accessories whose operating theories are electronically absurd or avowedly mysterious. In my view, it is incumbent on those manufacturers with improbable products that claim to enhance the sound of a system to submit them to scientifically controlled evaluation. Everyone is entitled to find pleasure by pursuing his muse—or wild goose—wherever it may lead him. But I do object to products being pushed for technically flawed or spurious reasons.

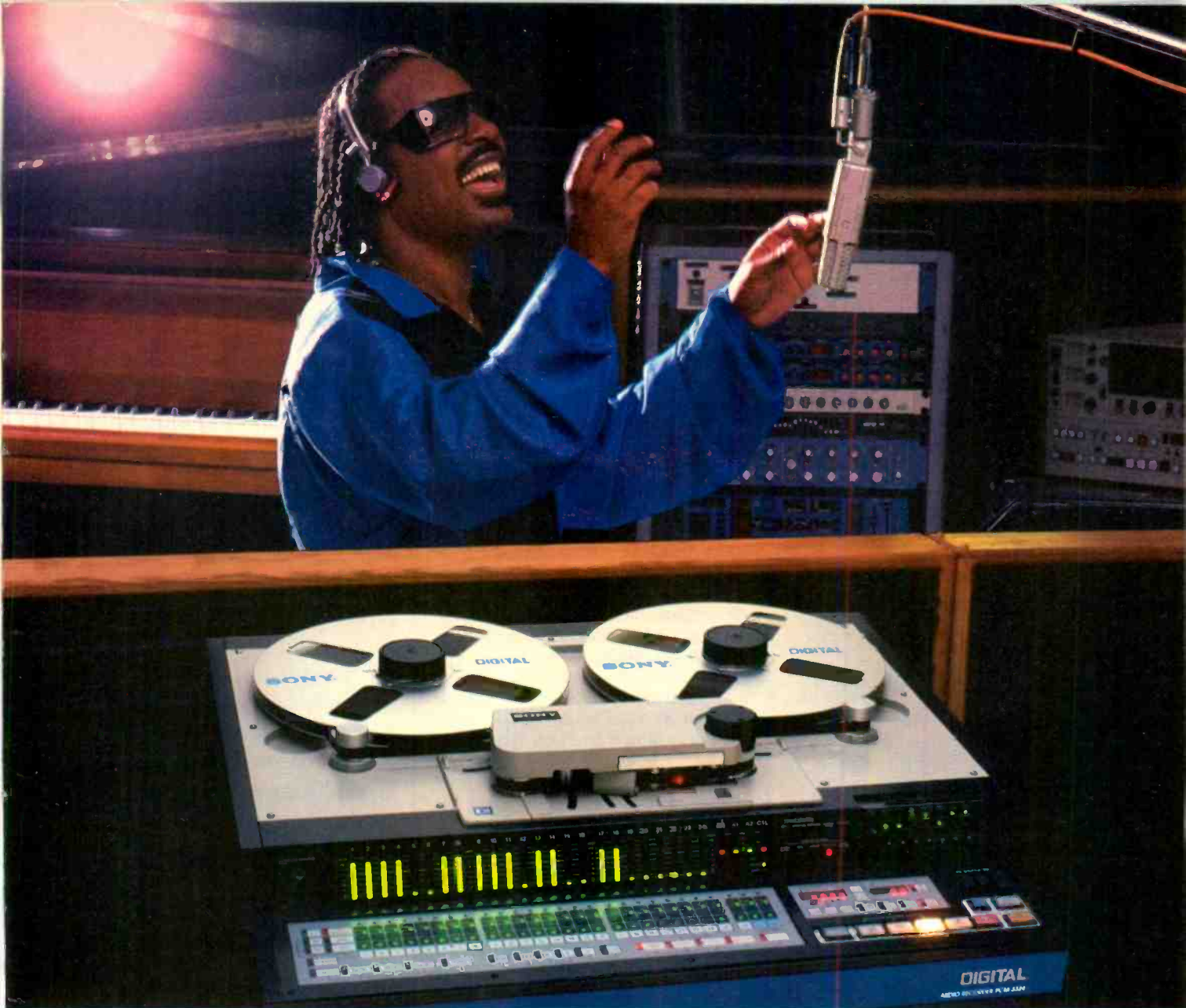
Specification Discrepancy

Q In the June 1985 Hirsch-Houck Labs test report on the Sony STR-AV760 receiver, its dynamic headroom was said to be 2.67 dB. To my surprise, however, the instruction manual for my unit indicates a headroom of 1.4 dB. Were the methods for determining headroom used by Sony and H-H Labs different enough to account for H-H's superior figures?

ERIC BUXO
Forest Hills, NY

A When I was a member of the IHF committee that framed the current amplifier standard, I fought long and hard to get "dynamic headroom" written into the standard. I'm pleased that manufacturers see fit to quote it—and that audiophiles like you are sensitive to its significance. The 2.67-dB dynamic-headroom figure reported by Julian Hirsch indicates that almost twice the amplifier's rated power is available to reproduce short-term musical peaks.

There are several possible reasons for the lesser value specified by Sony, none of which involve differences in test techniques. My best guess is that Sony upgraded the STR-AV760's power-supply capacitors at some point in the production run, thereby improving its dynamic headroom, but did not correct the manuals. The manuals may have been left uncorrected because Sony assumed people would not object to owning a unit that performed better than spec, the engineers weren't sure the higher figure could be consistently guaranteed in production and preferred to err on the side of conservatism, or someone simply forgot to change the spec when the capacitors were changed. In my twenty years of dealing with audio products and manufacturers for STEREO REVIEW, I've encountered many such legitimate reasons for discrepancies in specifications—plus some that weren't so kosher.



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SONY
THE LEADER IN DIGITAL AUDIO™

by Julian Hirsch



Where Do We Go from Here?

IN the December 1978 issue of STEREO REVIEW this column's headline was, "Is Perfect Audio Already Here?" The principal subject of the column was the less controversial performance aberrations of electronic audio components, such as noise and distortion, the levels of which even then were so far below audible thresholds as to be meaningless. I concluded then, as I would now, that there could be little or no benefit from further reduction of electronic noise or distortion levels.

But what about *significant* improvements in the quality of reproduced sound in the home? It is obvious, to me at least, that we have *not* yet achieved the goal of audio perfection.

One of the major problems in dealing with this question is the lack of any accepted definition of "perfection" in the sense used here. How would we recognize audio perfection if we heard it? One criterion might be the accurate simulation of a live performance. If we could sit at home and listen to music that was

indistinguishable from what we might hear in a concert hall, the question would be easy to answer. We would have arrived, and nothing more would remain to be done. I think we all realize that we have not even approached that condition, and as far as I know, no one has been able to propose any *practical* method for achieving it. I do, however, feel strongly that if we ever achieve audio perfection in this sense, it will not be through any improvements in the electronic reproducing equipment.

It has been my view for many years that the limitations on how high a "fi" we can get lie principally—say, 95 percent—in two areas: the original recording and the reproducing loudspeakers (including their relationship to the room). All else, including amplifiers, turntables, cartridges, and the rest, can be divided as suits your fancy within the remaining 5 percent. No matter how you apportion the contributions of these components, they won't have a significant effect on the "reality" of your reproduction of the original.

Assuming that my premise is true—many would disagree strongly with it—and that real perfection, or anything even close to it, will probably not be achieved by any currently known technology, why don't we set our sights a little lower and see how closely we can approach an achievable goal? My more pragmatic view of the goal of hi-fi is that it should convey an illusion, or impression, that one is hearing live music. A *believable* sound quality, rather than a firm

sense of reality, *is* achievable today under certain conditions, and I see no reason why this believability cannot be extended and enhanced somewhat by ongoing improvements in recording and loudspeaker technology.

I am by no means a recording expert, but you only have to listen to the available records to appreciate that some can already provide an unmistakable sense of acoustic presence while others are so lacking in life as to be a travesty of real performances. I believe this is a matter of recording technique on the part of the recording engineer and is not

It has long been my view that the limitations on how high a "fi" we can get lie principally—say, 95 percent—in two areas: the original recording and the reproducing speakers (including their relation to the listening room).

necessarily linked to the use of specific equipment or microphone positioning. I have heard superb recordings made with a wide variety of microphone configurations, ranging from a simple Blumlein setup (crossed microphone axes at the same physical location) to the other extreme of thirty-two or so microphones placed at key locations, with the recording actually created in the mixdown process. I have also heard many examples of recordings, most of them made by the multimicrophone method, that I found unlistenable.

I think of a good recording engineer as an artist in his own right, working in sound rather than color or form. Most of us have had the experience, though all too rarely, I am afraid, of hearing a recording that produces an electric tingle of emotional response. This suggests to me that we must be skirting the borders of our limited form of perfection very closely. Unfortunately, the number of really gifted recording engineers has always been small

Tested This Month

*Nakamichi Stasis PA-7
Power Amplifier
Akai GX-9 Cassette Deck
Onkyo Integra A-8067
Integrated Amplifier
dbx Soundfield Ten
Speaker System
Technics SL-XP7
Portable CD Player*

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TECHNICAL TALK

and probably will continue to be so. Nevertheless, it is easy to appreciate the special qualities of recordings made by the most talented of these artists, most of whose output appears on the smaller "audiophile" labels. The very existence of such well-made recordings offers hope for better sound to come.

The other end of the process, the loudspeaker and its interaction with the room and listeners, has been receiving considerable attention in recent years. There have been noteworthy steps toward an improved illusion of "reality," but no speaker system that I have heard has yet made a *definitive* breakthrough. Most current speaker development seems to be in the direction of proportioning the direct and reflected sounds so as to enhance the sense of space. Among the currently available designs of this sort, speakers by AR, Bose, dbx, and Polk come to mind, and no doubt there are oth-

ers. Each of these has a distinctive sound character, none sounds much like any of the others, and while the sound from any of them may be very enjoyable, none is likely to

As the CD becomes dominant, I hope recording engineers will adapt their techniques to the more revealing nature of the medium. But the speaker is the real key to improved sound.

convince a listener that he is hearing a real performance.

Although all conventional box speakers that I have heard fall well short of this quality level, a few forward-radiating types do provide distinctive spatial qualities and a

sense of liveness by making effective use of more conventional design techniques, including time and phase alignment of drivers, special crossover configurations, and other methods. I don't profess to be able to chart the future of speaker development, but I am quite sure that the major advances in natural reproduction will come from such approaches.

There has also been some success in creating an enhanced sense of space by such techniques as four-channel or surround-sound encoding and by purely electronic signal-processing methods such as time-delay enhancement and Carver's Sonic Holography. Each of these is capable of some degree of sonic enhancement, but none of them comes close to producing a full sense of reality.

It would be hard to ignore the arrival of digital recording and its major impact on the field. Seven

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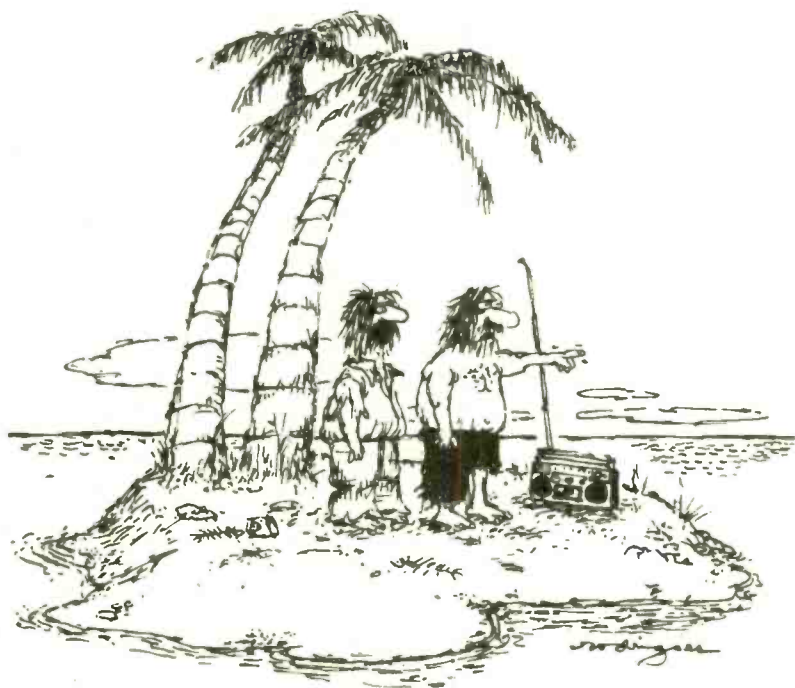
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years ago I minimized the importance of reducing system noise lower than 80 dB or so below the maximum program level. The subsequent appearance of the Compact Disc changes that situation slightly, but not too much. In the real world, because of masking by ambient noise, you are not likely to hear a -80-dB hum or hiss level even if the program source's residual noise is nearly -100 dB. Furthermore, many of today's electronic components already have a noise level close to that of a digital disc. I don't think much improvement is needed in that direction, and certainly not in distortion reduction. The reaction among amplifier designers against excessive use of negative feedback has even resulted in some excellent amplifiers whose distortion levels can be as high as (gasp!) 0.2 percent, but we don't seem any the worse for it.

Most of us can do little about recording quality other than by "voting with our pocketbooks." I think that market competition will provide a helpful impetus toward the making of really good records—and if not, I don't know what will. As the CD becomes dominant, which I believe will happen in a few years, it is to be hoped that record-

ing engineers will adapt their techniques to suit the more revealing nature of the digital medium. But the speaker is the real key to improved home sound reproduction,

and I am sure that we will continue to see advances in the development of better speakers as psychoacoustics and technology are more thoroughly integrated. □



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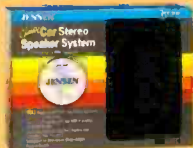
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PHOTOS BY RED AXON

NAKAMICHI STASIS PA-7 POWER AMPLIFIER

Julian Hirsch, Hirsch-Houck Laboratories

HIGH-END audio enthusiasts may experience a sense of *déjà vu* when they see the Nakamichi PA-7 power amplifier or read Nakamichi's highly informative brochure on it. The word "Stasis" displayed prominently on the amplifier's front panel is a clue that it uses circuitry designed by Nelson Pass, who is responsible for the Stasis amplifiers manufactured in the U.S. by Threshold Corporation, and licensed to Nakamichi by Threshold (Stasis is a Threshold trademark). The Nakamichi Stasis PA-7 is rated to deliver 200 watts per channel into 8 ohms, or 330 watts into 4 ohms, from 20 to 20,000 Hz with no more than 0.1 percent total harmonic distortion.

In the words of its front-panel inscription, the Nakamichi PA-7 is an "Inherently Stable/Uniform Impedance Amplifier." A key difference from conventional amplifier circuitry is that the Stasis circuit design uses *no* overall ("global") negative feedback. Ordinary negative-feedback amplifiers require

careful control of their phase-shift and frequency-response characteristics, as well as of the reactive component of the load impedance, in order to achieve unconditional stability. Some audiophiles have experienced amplifier oscillation, which can cause damage to the speakers,

The Nakamichi PA-7 uses Nelson Pass's "Stasis" circuitry, which requires no negative feedback. Its performance is virtually independent of load, signal dynamics, and spectral content.

as a result of excessive load capacitance from certain speaker cables or other sources. Because the performance of the Nakamichi PA-7 is virtually independent of the load characteristics, signal dynam-

ics, and spectral content, it is not subject to these undesirable side effects.

The PA-7's circuit topology uses a highly linear, low-current, Stasis voltage amplifier section, operating without global feedback, in parallel with a pair of high-current output stages (see diagram). These output stages, which supply the large currents needed by a speaker load, are described as positive and negative Current-Mirror Bootstraps. Although the low-power Stasis section defines the output-voltage waveform, its current output is only enough to correct for residual distortions within the Current-Mirror Bootstrap stages. The output section of each channel employs sixteen high-power transistors: fourteen connected in two groups of seven to form the positive and negative Current-Mirror Bootstraps, the other two in the Stasis amplifier section. The output-current capability is rated at 14 amperes per channel continuous or 50 amperes peak.

The Nakamichi PA-7 is a massive amplifier, with heavy heat sinks along each side and contoured handles to assist in handling its 59½-pound weight. Much of its interior volume is occupied by a 700-watt toroidal power transformer and a total of 132,000 microfarads of power-supply filter capacitance. The speaker outputs on the rear

panel are multiway heavy-duty binding posts that accept dual banana-plug connectors. The input phono jacks are gold plated. Rubber "feet" on the back of the amplifier make it possible to rest it on its back without damage to it or the supporting surface.

The only front-panel control is a large, flat plate that operates the power switch. There are no level adjustments. A green light bar above the switch serves as a pilot light, and two tiny red LED indicators near the top of the panel flash to show the onset of clipping in the

The output section of each channel employs sixteen high-power transistors: fourteen connected in two groups of seven for the Current-Mirror Bootstraps, the other two in the Stasis amplifier section.

left and right channels. The PA-7 is 17 1/8 inches wide, 16 1/2 inches deep, and 7 7/8 inches high. It is finished entirely in black with gold markings. Price: \$1,595. Nakamichi USA Corp., Dept. SR, 19701 South Vermont Ave., Torrance, CA 90502.

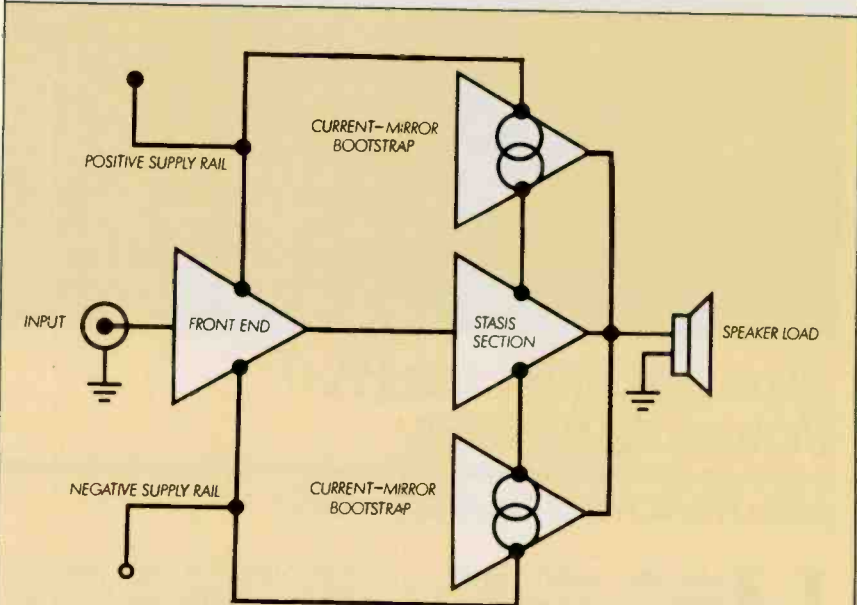
Lab Tests

The one-hour preconditioning at 67 watts output into 8 ohms made the PA-7's heat sinks fairly warm, but no part of the amplifier's exterior was uncomfortable to the touch. In normal operation the entire amplifier became moderately warm. The 1,000-Hz output waveform clipped at 253 watts per channel for a clipping headroom of 1 dB. The exceptional current-output capability of the PA-7 was demonstrated by its clipping output of 400 watts per channel into 4 ohms and 650 watts into 2 ohms (the latter was measured with only one channel driven to avoid possible blown fuses).

Relative to the amplifier's rated 4-ohm output of 330 watts, the clipping headroom was 0.85 dB. With the dynamic-power test signal of 1,000 Hz for 20 milliseconds, re-

FEATURES

- Rated at 200 watts sine-wave output per channel into 8-ohm loads (330 watts into 4 ohms) from 20 to 20,000 Hz with no more than 0.1 percent total harmonic distortion
- Dynamic power output rated at 300 watts into 8 ohms, 550 watts into 4 ohms
- Output current capability, 14 amperes per channel continuous, 50 amperes peak
- Clipping indicator lights on front panel
- Protection system silences outputs if load draws excessive current or temperature exceeds 75° C
- Power consumption, 700 watts maximum



Circuit topology of the Nakamichi PA-7. The Stasis section is a low-power voltage amplifier. The PA-7's muscle is provided by the two Current-Mirror Bootstraps, whose output current is determined by the voltage across the speaker terminals. There is no overall negative feedback.

LABORATORY MEASUREMENTS

<p>1,000-Hz continuous output power at clipping: 253 watts into 8 ohms, 400 watts into 4 ohms, 650 watts into 2 ohms</p> <p>Clipping headroom (relative to rated output): 1 dB (8 ohms), 0.85 dB (4 ohms)</p> <p>Dynamic power output: 350 watts into 8 ohms, 612 watts into 4 ohms, 960 watts into 2 ohms</p>	<p>Dynamic headroom: 2.43 dB (8 ohms), 2.7 dB (4 ohms)</p> <p>Harmonic distortion (1,000 Hz, 8 ohms): 1 watt, 0.0055%; 200 watts, 0.036%</p> <p>Sensitivity (for a 1-watt output): 130 millivolts</p> <p>A-weighted noise (referred to a 1-watt output): -100 dB</p>
-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

peated twice per second, the maximum power output into loads of 8, 4, and 2 ohms was 350, 612, and 960 watts per channel, respectively. The corresponding dynamic-headroom figures for 8 and 4 ohms were 2.43 and 2.7 dB.

The maximum 2-ohm output was determined by the amplifier's fast-

acting internal protective relay, which "clicked" with each burst without actually shutting off the outputs, but the waveform did not clip until the output reached almost 1,100 watts. According to Nakamichi, the PA-7's protective circuits operate independently for the two channels, cutting off their outputs if

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TEST REPORTS

the amplifier is driven to excessive levels (especially into very-low-impedance loads) or has a d.c. component in its output or reaches an internal temperature of 75° C. Although the PA-7 draws considerable current from the power line at high power levels, it has an inrush-current limiter that minimizes the turn-on surge, and the output is muted for 5 seconds to allow the circuits to stabilize.

The distortion characteristics of the Nakamichi PA-7 were almost independent of frequency. At the rated 200 watts output into 8 ohms the distortion was between 0.03 and 0.04 percent from 20 to 20,000 Hz.

The exceptional current-output capability of the PA-7 amplifier was demonstrated by its clipping output of 400 watts per channel into 4 ohms and 650 watts into 2 ohms (one channel only).

At lower outputs the distortion was almost as uniform but lower in magnitude. The 1,000-Hz distortion into 8-ohm loads increased from about 0.005 percent at 5 watts or less to 0.036 percent at 200 watts. The 4-ohm readings were slightly higher, varying between 0.01 and 0.05 percent up to the 330-watt rated output. Similarly, when driving 2 ohms the amplifier distortion varied between 0.02 and 0.06 percent over the power range from 0.1 to 600 watts.

The amplifier's sensitivity (for a 1-watt output) was 130 millivolts, and the A-weighted noise was -100 dB relative to 1 watt—which is equivalent to -123 dB relative to its rated output! Its frequency response was flat within +0, -0.3 dB from 20 to 20,000 Hz and down 3 dB at 6.7 and 140,000 Hz. The slew factor could not be measured; we were advised by the manufacturer that a resistor/capacitor combination across the output terminals would not withstand full-power op-

eration at ultrasonic frequencies. The PA-7 was stable with various reactive loads, showing only a single small overshoot on a square-wave signal with a simulated speaker load.

Comments

Clearly, the Nakamichi PA-7 is one of the elite amplifiers available to today's sophisticated audiophile. It is expensive, to be sure, but it cannot be faulted in any aspect of its design, construction, or performance. Although we have never found significant differences in sound quality between amplifiers of this caliber, our listening tests with several types of speakers confirmed that the PA-7 sounds at least as good as any amplifier we've used.

Every bit as important as sonic subtleties, in our view, is the overall quality of a product, especially one as costly as the PA-7. Will it continue to perform, year after year, without degradation or need of maintenance? Can you be certain that a catastrophic internal failure will not damage your high-priced speakers? On a more routine level, does the amplifier produce *any* sound of its own when it is turned on, turned off, or simply used? Switching tran-

sients, a noisy fan, humming transformers, buzzing top covers, and the like may be minor annoyances in an inexpensive product but would be

The Nakamichi Stasis PA-7 lives up to the recognized Nakamichi quality standards in every respect. It is a credit to its manufacturer and its designer.

absolutely intolerable if they occurred in one like the Nakamichi PA-7.

We are convinced that this amplifier lives up to the recognized Nakamichi quality standards in every respect. It is a credit to its manufacturer and its designer. In addition, we appreciated its superbly designed handles, which are shaped to allow its 60-pound weight to be lifted and moved about without risk to person or property. Such small features tell as much about a manufacturer's standards as his circuit topology.

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AKAI GX-9 CASSETTE DECK

Craig Stark, Hirsch-Houck Laboratories

THE Akai GX-9 is a three-head, dual-capstan cassette deck with Dolby B and Dolby C noise reduction, automatic bias optimization for each individual tape, and a host of other automated features that contribute to its ease of use without compromising its performance.

In the transport section of the GX-9, the pulling capstan is driven by a direct-coupled d.c. servomotor. As is usual in dual-capstan designs, the rear capstan is belt-driven and rotates at a slightly slower speed to provide proper tape tension within the closed tape loop. A separate d.c. motor powers the spool hubs during fast forward and rewind. Additional d.c. motors are used for the head-gate mechanism and also for a cam system that replaces conventional solenoid-activated controls for quieter, smoother operation.

The GX-9's separate record and playback heads are made of Akai's very durable GX material, a glass-and-ferrite formulation, and should last the life of the deck. Conveniently, monitoring is automatically switched from source to tape when playing or recording begins. A manual switch can be used for instant comparisons between the incoming signal and the recorded result, a capability that is a principal advantage of separate-head designs.

While the GX-9 has a typical-looking cassette well, there is no separate pushbutton to open and

close its door. Instead, the stop button is coupled to the cassette-eject mechanism. Pressing this button when the tape is already stopped alternately opens and closes the door after momentarily applying a small amount of take-up torque to eliminate any tape slack.

The record-pause button also plays a dual role by automatically activating the GX-9's bias-tuning circuitry. Three short, low-level (-25-dB) beeps are recorded and analyzed in about 2 seconds to optimize the bias and record equalization for each individual tape. If you make large changes in the record-level setting, pressing the TUNING CLEAR button resets the deck for a new optimizing run, and at any point you can manually override the auto bias setting. While we didn't find it necessary to use the override option, those who wish to fine-tune the bias by ear can switch the peak-reading record-level display from its normal use to a display of the high-frequency and low-frequency spectral balance.

The fluorescent record-level display has twelve segments per channel and is calibrated from -25 dB to +8 dB. Since the same indicators are used for both peak level and spectral balance, at the top end two scales actually overlap. Thus, the +8-dB marking is actually +12 dB referred to the deck's regular 0-dB calibration mark. The inconsistency in the numbers is of small conse-

quence, however, compared with the ability to read the record level in 2-dB increments in the range where tape overload could be experienced. Complementing the record-level display is a four-digit tape counter, which can be switched to show either arbitrary counter units, elapsed time, or remaining time.

Additional visible pushbuttons are used for memory rewind/play, scanning the beginnings of successive selections, auto fade in/out, and record cancel. The last function stops a recording in progress, rewinds the tape to where you previously ended a selection, inserts a 4-second blank space, and then puts the deck in record-pause mode.

The Akai GX-9 measures 17¼ inches wide, 14½ inches deep, and 4 inches high, and it weighs 15¼ pounds. Price: \$500. Akai America, Ltd., Dept. SR, 800 W. Artesia Blvd., P.O. Box 6010, Compton, CA 90224.

The playback frequency response of the GX-9 was extremely flat and smooth, deviating no more than ±1.2 dB throughout the 31.5- to 18,000-Hz range of our calibrated IEC-standard BASF test tapes.

On an overall record-playback basis, frequency response at the customary -20-dB level was, if anything, even flatter. It measured between +0.5 and -1.5 dB from 25 to 20,000 Hz with either TDK AD-X (ferric) or TDK MA (metal). TDK SA (CrO₂-equivalent) showed a very slight (2-dB) and gradual rise in the highest frequencies. Of particular note was the low-frequency response, which on most decks falls



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TEST REPORTS

off rapidly below 50 Hz. The Akai GX-9 measured only -3 dB at 20 Hz, partly because of its direct-coupled amplifier design and partly because it employs the proper record equalization. While LP's and broadcasts almost never capture the lowest musical octave(s), making their loss unnoticeable in dubbing from these sources, Compact Discs do include the low bass.

At a 0-dB recording level, the overall response with the metal tape was good, though not exceptional, in the highest octave (10,000 to 20,000 Hz) and very good when Dolby C was used—as it surely would be for dubbing Compact Discs. Also noteworthy was the very good performance of TDK AD-X, a premium-grade ferric oxide that we selected over Akai's suggested Maxell UD, an older formulation whose curve closely resembled that of TDK SA (CrO₂).

Signal-to-noise ratios for the GX-9 were good, as were its wow-and-flutter measurements. The latter slightly exceeded the rating of 0.025 percent wrms, a specification that seemed unreasonably optimistic for a deck in this price class, but there was no audible wow-and-flutter in any case.

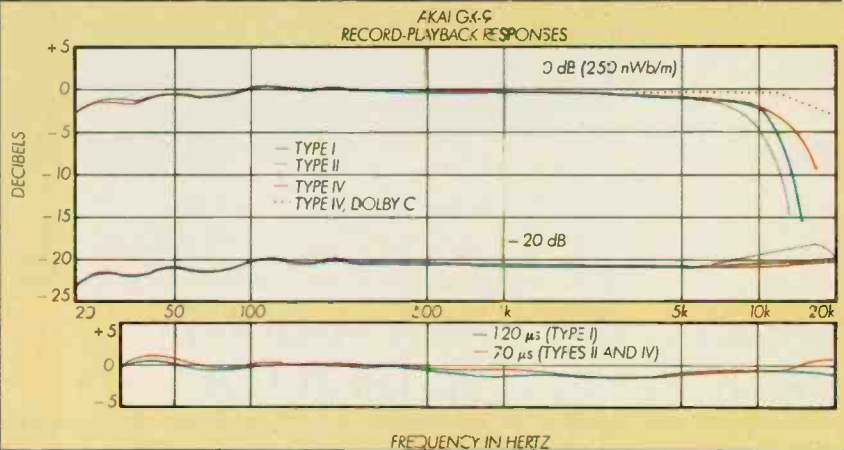
Dolby tracking at both -20 dB and -30 dB was in some respects even better than our good measurements suggest, since the error we found was in the form of a low-frequency (below 400 Hz) "shelf" that a slight amplifier bass adjustment could easily eliminate to restore flat response. Speed accuracy was very good, and line sensitivity and output were entirely normal.

Comments

The Akai GX-9 is a pleasant exception to the rule that full-featured cassette decks are hard to use, worse to look at, and impossible to afford. It is tastefully uncluttered in appearance, and we found it a pleasure to use. The automatic bias-adjustment feature proved highly accurate and required no operator intervention at all. While the deck does not automatically erase its very brief, low-level setup tones, we found we could do so very easily with the record-cancel feature, though this use is unexplained in the manual.

FEATURES

- Separate glass/crystal record and playback heads
- Dual-capstan, direct-drive, four-motor transport
- Automatic or manual bias optimization for each tape
- Four-digit fluorescent counter displays hub rotations or elapsed or remaining time
- Peak-reading record-level display can be switched to show spectral balance
- Dolby B and Dolby C noise reduction
- Memory-rewind and intro-scan program selection
- Cam-activated mode-change mechanism
- Playback level control
- Selectable two-speed auto fader
- Switch-selected FM multiplex filter
- Optional timer and remote-control operation



LABORATORY MEASUREMENTS

Fast-forward time (C-60): 82 seconds

Rewind time (C-60): 82 seconds

Speed error: -0.2%

Dolby tracking error: Dolby B, +0, -2.0 dB; Dolby C, +0, -3.0 dB

Wow-and-flutter: 0.043% wrms; 0.064% DIN peak-weighted

Line input for indicated 0 dB: 63.5 mV

Line output at indicated 0 dB: 0.37 volt

Meter indication at IEC-standard 0 dB: +2 dB

Tape: TDK AD-X (Type I, ferric)

IEC 0-dB distortion: 0.34%

Meter indication at 3% third-harmonic distortion: +8 dB

Signal-to-noise ratios (in decibels):

	Unwtd.	A-wtd.	CCIR
NR off	53.3	58.2	55.4
Dolby B	60.6	67.2	65.5
Dolby C	62.6	73.7	74.5

Tape: TDK SA (Type II, chrome-equivalent)

IEC 0-dB distortion: 0.94%

Meter indication at 3% third-harmonic distortion: +4 dB

Signal-to-noise ratios (in decibels):

	Unwtd.	A-wtd.	CCIR
NR off	54.1	59.8	57.7
Dolby B	60.6	68.1	67.6
Dolby C	61.5	74.1	75.4

Tape: TDK MA (Type IV, metal)

IEC 0-dB distortion: 0.95%

Meter indication at 3% third-harmonic distortion: +4 dB

Signal-to-noise ratios (in decibels):

	Unwtd.	A-wtd.	CCIR
NR off	53.5	59.5	57.5
Dolby B	60.6	68.2	67.6
Dolby C	62.2	74.0	75.5

Both playback and recording quality were good, with clear highs and un-muddied lows even in dubs of CD's onto the ferric TDK AD-X. In sum, the Akai GX-9 manages to combine the high performance that will appeal to the serious recordist

with the kind of automation and convenience that will be appreciated by all but the obsessive knob-twister. And in a cassette deck that lists at \$500, that's an impressive accomplishment.

Circle 141 on reader service card



ONKYO INTEGRA A-8067 INTEGRATED AMPLIFIER

Julian Hirsch, Hirsch-Houck Laboratories

ONKYO'S A-8067 integrated stereo amplifier, which replaces the A-8017 in the Integra line, delivers slightly higher power, with significantly improved dynamic headroom and performance with difficult loads, for a price \$15 lower. The A-8067's power rating is 80 watts per channel into 8-ohm loads, or 135 watts into 4 ohms, from 20 to 20,000 Hz with no more than 0.015 percent total harmonic distortion. For a moderately priced integrated amplifier, it has unusually good dynamic power ratings (based on the EIA's dynamic-headroom test standard) of 135 watts, 205 watts, and 295 watts per channel into load impedances of 8, 4, and 2 ohms, respectively. The improved performance of the A-8067 compared with the A-8017 primarily results from its larger power transformer and from doubling the number of output transistors.

Other features of the A-8067 include Onkyo's "Real Phase" power supply and a dual record-output selector system, which provides inde-

pendent source selection for two tape decks in addition to the regular program-source selector. If two tape decks are used, this feature permits recording, say, a phonograph record on one deck and a CD on the other deck while listening to a tuner through the speakers or headphones. Alternatively, if a signal-processing accessory, such as an equalizer, dynamic expander, or noise reducer, is connected into one of the tape loops instead of a tape deck, it can be used to modify the program being heard without affecting the signal being recorded.

The Real Phase power supply, also featured on some other Onkyo amplifiers, is designed to minimize fluctuations in power-supply capacitor-charging currents while amplifying low-frequency signals (principally in the range from 50 to 60 Hz, where speaker resonances can cause large phase angles between the amplifier's voltage and current output). According to Onkyo, this effect causes "ripples" or fluctuations in the power-supply charging currents that can be imposed on the d.c.

operating voltages or induce spurious signals into the low-level amplifier stages. To avoid this effect, Onkyo added a second power transformer, which supplies the charging currents needed to compensate for these extra demands and results in a more uniform power-supply output and a full power reserve for the lowest frequencies.

The overall "beefing up" of the A-8067 has resulted in an amplifier with a current-delivering capacity unheard of only a few years ago in its price class—and still quite unusual. This makes the A-8067 suitable for driving some of the low-impedance, high-quality speakers that have previously been fully usable only with much larger and more expensive amplifiers.

The Onkyo A-8067 is relatively large and heavy for its power ratings and price. Measuring 17¼ inches wide, 15¾ inches deep, and 5¾ inches high, it weighs 26½ pounds. Price: \$400. Onkyo U.S.A. Corp., Dept. SR, 200 Williams Dr., Ramsey, NJ 07446.

Lab Tests

Because of its large size and mass relative to its power rating, the Onkyo A-8067 became only moderately warm over the internal heat sink fins during the hour of preconditioning at one-third rated power. In fact, at no time during our tests or use of the amplifier did any part of



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With both channels driving 8-ohm loads at 1,000 Hz, the output clipped at 98 watts for a clipping headroom of 0.88 dB. With 4-ohm loads, the output at clipping was 144 watts per channel, and with 2-ohm loads it was an impressive 200 watts per channel. With the 20-millisecond tone bursts (twice per second) of the EIA dynamic-power test, the respective clipping power outputs were 138, 242, and 352 watts per channel into loads of 8, 4, and 2 ohms. Each of these measurements surpassed the ratings.

The 1,000-Hz harmonic distortion with 8-ohm loads fell from 0.015 percent at 1 watt to less than 0.002 percent between 30 and 90 watts. Driving 4 ohms, the amplifier's distortion curve was similar, dropping from 0.02 percent at 1 watt to 0.0025 percent at 120 watts. With 2 ohms the range was from 0.028 percent at 1 watt to 0.0034 percent at 150 watts. The distortion was unusually independent of frequency, remaining between 0.002 and 0.005 percent from 20 to 20,000 Hz at the rated 80 watts into 8 ohms and also at half power. At one-tenth the rated power, the shape of the curve was the same but the distortion readings were between 0.0055 and 0.0085 percent.

The frequency response with the tone controls at their center (DE-

Besides having very low distortion, the Onkyo A-8067 simply doesn't care about power level or frequency or even load impedance. The frequency response was so flat we could not detect any noticeable irregularities.

FEAT) settings was ruler-flat, varying less than the width of the ink trace on our pen recorder (less than 0.1 dB overall) from 20 to 20,000 Hz. The tone controls had shelved characteristics, affecting bass response below 300 Hz and the treble above

FEATURES

- Real Phase power supply to maintain pure d.c. supply voltages
- Drives low-impedance loads (down to 2 ohms)
- Separate recording/source selectors for two tape decks; selectable sources include tuner, CD, aux, and phono or dubbing from either deck to the other; lights show selected source
- Phono preamplifier switchable for MM or MC cartridges; MC cartridge termination switchable to 100 or 220 ohms
- Input-selector pushbuttons with status lights for tape 1, tape 2, aux, tuner, CD, phono
- Selector switch for one or two pairs of speakers
- Headphone jack
- Detented knobs for bass and treble tone controls (defeated in center positions)
- Center-detented balance knob
- Pushbutton switches for SUBSONIC filter, mono/stereo mode, loudness compensation, and -20-dB muting
- Rear apron has three a.c. outlets, one switched, and insulated binding posts for two pairs of speakers

LABORATORY MEASUREMENTS

1,000-Hz output power at clipping: 98 watts into 8 ohms, 144 watts into 4 ohms, 200 watts into 2 ohms

Clipping headroom (relative to rated output): 0.88 dB (8 ohms)

Dynamic power output: 138 watts into 8 ohms, 242 watts into 4 ohms, 352 watts into 2 ohms

Dynamic headroom: 2.38 dB (8 ohms)

Frequency response: ± 0.05 dB from 20 to 20,000 Hz

Maximum distortion (20 to 20,000 Hz, 80 watts output): 0.003% (8 ohms)

Sensitivity (1-watt output): aux, 16 mV; MM phono, 0.27 mV; MC phono, 0.056 mV

A-weighted noise (referred to 1-watt output): aux, -80 dB; MM phono, -78 dB; MC phono, -76 dB

Phono-input overload level (MM): 195 to 235 mV, depending on frequency

Phono-input impedance (MM): 47,000 ohms in parallel with 190 pF capacitance

Slew factor: 4

RIAA equalization accuracy: ± 0.05 dB from 20 to 20,000 Hz

3,000 Hz. The maximum range was an adequate +8 dB at the frequency extremes. The loudness contour boosted both low and high frequencies as the volume-control setting was reduced but had a maximum boost range of only 5 dB. The range from 1,000 to 3,500 was essentially unaffected, and the overall effect was pleasing and free of unnatural effects.

The SUBSONIC FILTER began to roll off response below 100 Hz, and it was down 3 dB at 27 Hz. The RIAA phono equalization was extremely accurate, varying less than the tolerance of our inverse-RIAA network or the width of the recorder pen trace. The overall response variation of perhaps 0.1 dB was unique in our experience.

Comments

Because of the great similarity in performance and features among most comparably priced audio

products, we were unprepared to find so many points of superiority in a \$400 integrated amplifier. Frankly, the Onkyo A-8067 was a surprise to us, one of those occasional "finds" that prevent our work from becoming humdrum. Its superiority did not lie in any special sound quality, although it certainly sounded as smooth and quiet as any amplifier we have ever used. Amplifiers tend to sound pretty much alike, and any departure from the norm is more likely to reflect a flaw than a virtue.

The characteristic of the A-8067 that impressed us most was its excellence in so many areas of performance. It is exceedingly rare for an amplifier to have nearly constant (and low) distortion over the full audio frequency range and at widely divergent power levels. Usually the distortion rises considerably at one or both of the frequency extremes or varies substantially with frequency.

But the distortion of the A-8067, besides being very low (which in itself probably doesn't have much to do with its listening qualities), simply doesn't care about the power level or frequency or even, generally speaking, the load impedance. The frequency response, especially the RIAA equalization, was so flat that we really could not detect any noticeable irregularities. Again, while this is perhaps not a vital matter, it shows care and attention to detail in the design of the product.

Frankly, we are not convinced of the validity of Onkyo's rationale for the Real Phase power supply, but it probably doesn't matter too much to the buyer and user of this amplifier. We tend to be concerned more with how *well* something works than with *how* it works, and that holds true in this case. Our only criticism is that the speaker binding posts are not spaced for use with dual banana plugs.

The amplifier's noise levels, though not quite the lowest we have ever encountered, were certainly among the best we have seen in comparable products, and well below audibility under any practical conditions of use. There were no switching transients or other annoyances in its operation, and the amplifier's protective relay shut it down only when we drove it into hard clipping with 2-ohm loads—and a couple of seconds after the overload was removed, it returned to service automatically.

Add to these impressive measurements the above-average operating versatility of the A-8067, including its dual tape/source selection system and built-in moving-coil preamplifier, and it is plain that it is no run-of-the-mill amplifier. For instance, even though the A-8067 does not have separate PRE-OUT and MAIN-IN jacks for installing signal-processing accessories, one of its two tape loops can be used for that purpose, with the added benefit that the processing becomes switchable from the front panel.

One thing is certain: when so many things are done correctly in the design and construction of a product, and so few incorrectly, the result deserves praise. The Onkyo A-8067 is a really special integrated amplifier at a bargain price.



DBX SOUNDFIELD TEN SPEAKER SYSTEM

Julian Hirsch, Hirsch-Houck Laboratories

MORE than a year ago, dbx, which was known until then only as a manufacturer of signal-processing and noise-reduction devices, entered the loudspeaker field with a revolutionary new product, the Soundfield One. The results of extensive psychoacoustic studies were incorporated into the design of the dbx Soundfield One with the goal of generating a sound field that would present a stable and realistic stereo image to listeners anywhere in the room.

The Soundfield One speakers are constructed as "phased arrays" of multiple drivers driven by signals having carefully controlled amplitude and phase characteristics. Each speaker's horizontal polar radiation pattern is largely omnidirectional

but favors the direction of the opposite speaker. The frequency response of the Soundfield One, unlike that of most speakers, is virtually the same in all directions. And, as we reported in the July 1984 issue, the Soundfield One meets its design

The dbx Soundfield Ten was designed to have sound qualities similar to those of the earlier Soundfield One for a little less than half the price.

goals in that it combines a stable stereo image throughout the room with superb overall sound quality.

At \$2,600 a pair, however, the dbx Soundfield One is expensive, partly because of the fourteen drivers in each cabinet and an accompanying complex and versatile electronic equalizer.

The new Soundfield Ten was designed to have sound qualities similar to those of the Soundfield One but to sell for a much lower price—a little less than half. Among the obvious changes in the Model Ten are the reduced number of drivers, eight instead of fourteen, and a redesigned and simplified equalizer. The cabinet of the Soundfield Ten is nearly as large as that of the Soundfield One, but instead of *each* of the four sides having a pair of woofer/midrange drivers, the front and rear surfaces are solid and only the left and right sides have the low- and middle-frequency drivers: a 9-inch woofer and a 4-inch cone midrange operating in sealed enclosures. The dbx engineers found that most of the desired effect at low and middle frequencies could be obtained with the side radiation alone. One benefit of this radiation pattern is that the Soundfield Ten can be placed against a wall without sacrificing its unique spatial properties.

The frequency-response curves from the left and right speakers were essentially identical above 100 Hz, and we cannot recall ever measuring as flat a high-frequency room response.

The tapered "top hat" of the Soundfield One, which contains an array of six dome tweeters covering a full 360 degrees, has been retained in the Soundfield Ten, but the number of drivers has been reduced to five. As in the Soundfield One, the tweeter that faces the opposite speaker is about 1 inch in diameter, and the other tweeters are approximately $\frac{3}{4}$ inch.

The primary function of the driver and crossover configuration of

FEATURES

- Phased-array driver configuration gives specially shaped polar response
- Uniform frequency response in all directions
- Each cabinet has two 9-inch woofers, two 4-inch midrange cone drivers, four $\frac{3}{4}$ -inch dome tweeters, and one 1-inch dome tweeter
- Typical power response is 30 to 20,000 Hz \pm 2.5 dB
- Rated sensitivity (mid-band, typical room) of 90 dB SPL at 1 meter with 2.83-volt drive level
- Recommended amplifier power of 40 to 300 watts per channel into 4 ohms
- Nominal 4-ohm impedance, ranges from 2.5 to 8 ohms
- Outboard SFC-10 controller equalizes speaker response and has adjustment knobs for low- and high-frequency compensation and ambience (midrange L-R and L+R balance), switches for power, tape-monitor circuit, equalizer bypass, and wall-placement equalization

the dbx Soundfield system is the creation of a specific directional characteristic rather than a uniform frequency response. Therefore, it is necessary to equalize the system electrically to smooth the frequency response. The SFC-1 controller supplied with the Soundfield One is a large unit with several features in addition to its equalization functions. Among these features is a sophisticated electronic protection system that monitors the input power levels separately at low and high frequencies and automatically reduces them to safe levels when necessary, making it effectively impossible to blow out a driver.

Although the new SFC-10 controller is only a fraction the size of the SFC-1, it provides similar equalization and the same response-trimming adjustments as the SFC-1, including an AMBIENCE control and both low- and high-frequency compensation controls. In addition, a switch marked WALL equalizes the system appropriately for placement next to the wall instead of free-standing. The power monitor has been eliminated, however, and the user is advised to protect the speakers by inserting fuses in their circuits. Like most signal-processing accessories, the SFC-10 is normally connected in an amplifier's tape-monitoring loop, and the function of the amplifier's tape-monitor switch is performed by a similar switch on the controller.

The instruction manual for the dbx Soundfield Ten is exceptionally complete and informative, in striking contrast to the many speaker "instruction" sheets that tell you lit-

tle or nothing about the performance and design features of the product. Because of the unique nature of the Soundfield Ten's design, it is advisable to read the manual carefully. The electrical and acoustic specifications for the speakers and controller/equalizer are included along with details of the test conditions (almost unheard of in loudspeaker specifications).

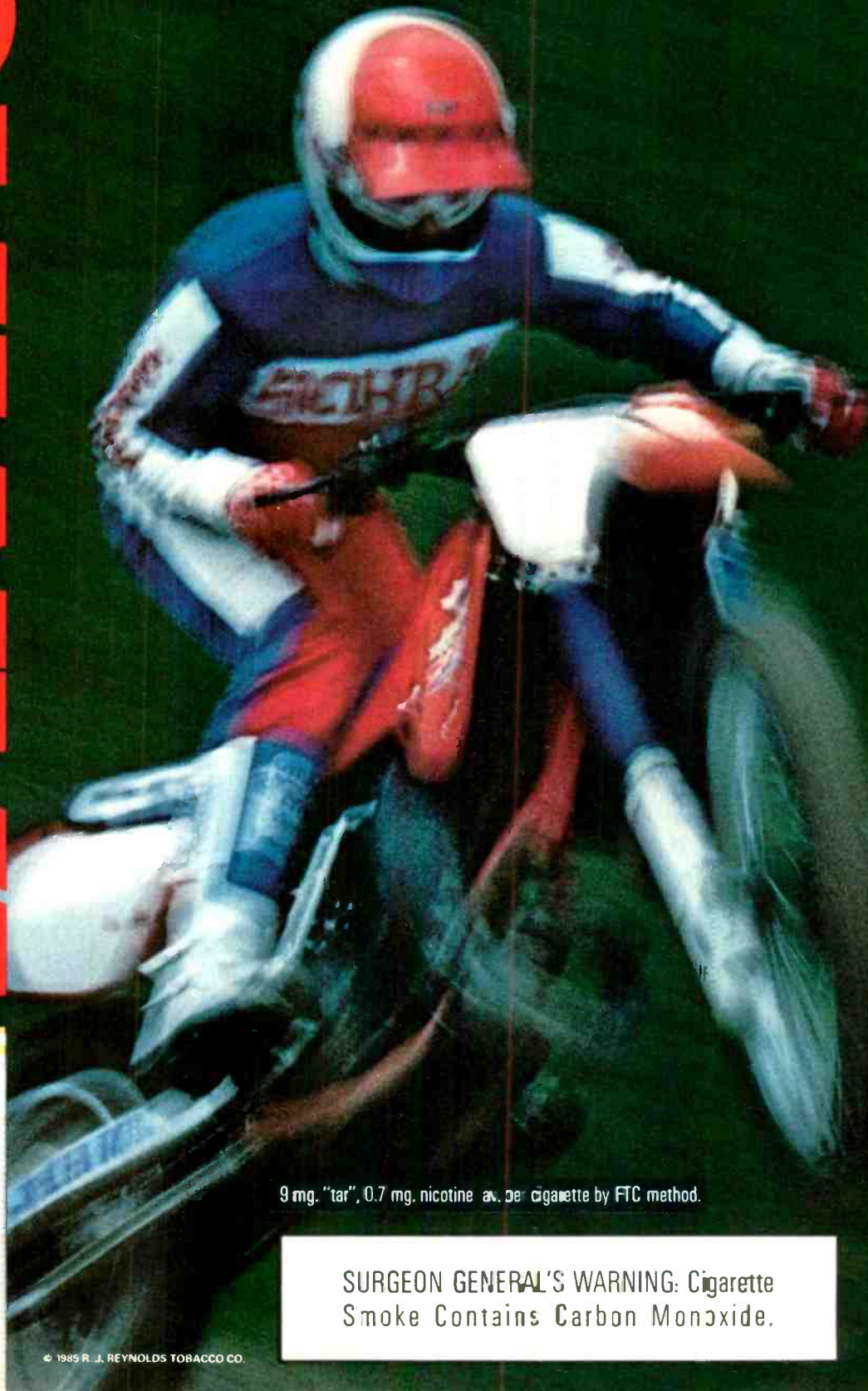
The dbx Soundfield Ten is finished in walnut veneer on its front and rear surfaces and has black cloth grilles on its left and right sides. Its tweeter array is covered by a tapered frame with black cloth on all four sides and a walnut-finish top surface. The heavy-duty input binding posts are underneath the cabinet. Each speaker system measures 34 inches high and approximately 15 inches square, and each one weighs a little more than 50 pounds. The black-finished SFC-10 Soundfield Imaging Controller is 8½ inches wide, 7 inches deep, and 1¾ inches high. Price: \$1,250 per pair (including the SFC-10 controller/equalizer).

Lab Tests

The acoustic performance of the dbx Soundfield Ten is derived from the total radiation of both speakers as they interact and the way their interaction is perceived by listeners throughout the room. We would therefore expect the most meaningful measurements to be those of the overall system room response rather than quasi-anechoic, or simple FFT, measurements of a single speaker or driver. This proved to be the case in respect to agreement

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between the measured results and our subjective response to the sound of the speakers, although we found the FFT measurements useful also as a check on the room-response curves as well as an indication of the response smoothness of individual drivers and of the cross-over frequencies.

As might be expected from the omnidirectional radiation pattern of the Soundfield Ten, the frequency-response curves from the left and right speakers, measured with the microphone on the axis of the left speaker, were essentially identical above 100 Hz (room resonances affected lower frequencies slightly). We cannot recall having ever before measured a high-frequency room response as flat as that of the Soundfield Ten. From 4,000 to 20,000 Hz the average of the two speaker-output curves varied less than ± 0.5 dB. As with all our tests of this system except power handling, we made these response measurements through the SFC-10 controller/equalizer with all its controls set to their nominal (center) positions.

Our low- and middle-frequency measurements were also made with the microphone close to the driver to remove the effect of the room on

As you walk around the room, the stereo stage remains effectively fixed, extending somewhat beyond the speakers themselves. The apparent sound sources do not shift as you approach either speaker.

the response. The woofer and the midrange cone driver were measured separately and plotted on the same graph coordinates. The cross-over between them appeared to be at about 300 Hz, and the 4-inch midrange driver crossed over the tweeter array at about 3,000 Hz.

The combined low-frequency curves could be spliced to the room response with little ambiguity, resulting in a composite response flat within 5 db overall from 56 to



The Soundfield Imaging Controller adjusts the response of the Soundfield Tens.

20,000 Hz. As with any of these composite curves, the low-frequency portion can be strongly affected by the speaker's surroundings (room size and acoustic treatment) and its placement in the room as well as the position of a listener with respect to the speakers. The composite curve should be viewed as a rough indication of what the speaker system *might* do in a hypothetical room, but in most real-life situations the low-frequency response limit would probably be shifted downward and the overall bass output would be stronger but not as uniform.

That is essentially what we heard from the Soundfield Ten. The effective low-frequency response extended to about 35 Hz, and the overall response was as smooth at our ears as it had been at the microphone diaphragm. The bass-response adjustment of the SFC-10 is similar to that of a parametric equalizer, with a range of about ± 8 db at 35 Hz and little effect at 100 Hz and above. Using the control made it possible to flatten the bass response; with the adjustment near maximum, the composite frequency response was within ± 2.5 dB from 30 to 20,000 Hz. We were interested—and impressed—to find that the typical power-response specification in the speaker manual was exactly the same as our room-response measurement!

The nominal impedance of the Soundfield Ten is 4 ohms, but the specifications give its range as 2.5 to 8 ohms, as our measurements confirmed. The impedance ranged from

a minimum of 2.3 ohms at 450 Hz to a maximum of 7.5 ohms at 170 Hz, but over most of the audio range it remained between 3 and 5 ohms. The sensitivity was measured separately for the front and side directions. From the front, the sound-pressure level (SPL) at 1 meter was 86 dB with an input of 2.83 volts (an octave band of pink noise centered at 1,000 Hz). Measured from the side, facing the two cone drivers, the sensitivity was 93 dB. Since in actual use the sound comes from all directions, dbx's sensitivity rating of 90 dB appears to be realistic (it is also approximately the average of our two measurements).

Our FFT (quasi-anechoic) frequency-response measurements produced curves very like those of the room-response tests. An FFT measurement of both systems operating simultaneously yielded a smooth response curve that resembled our composite room curve, varying about 3 dB overall from 230 to 11,000 Hz. The group delay varied ± 0.4 millisecond from 4,000 to 23,000 Hz and reached its maximum, 1.2 milliseconds, at 180 Hz.

We measured the woofer distortion with a constant input to the controller at a level that developed 2.83 volts across the speaker terminals at 1,000 Hz. The equalizer circuits boosted the actual driver level considerably throughout our measurement range from 100 Hz on down, which caused the distortion readings to be higher, especially at the lowest frequencies, than those of conventional (unequalized) speakers; we measured 5 percent at 48 Hz



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and 12 percent at 40 Hz. The data from the Soundfield Ten should *not* be compared directly with data from other speakers, however, since the actual drive level ranged from 6 to 25 watts instead of the 1 or 2 watts used with most speakers.

The SFC-10 equalizer had an insertion loss of 10 dB at 1,000 Hz. Its

If the program contains any deep bass, you suddenly become aware that the dbx Soundfield Tens are no ordinary speakers. The deep, skin-tingling bass they can deliver even at moderate levels sets them apart.

output clipped at 1.3 volts at 1,000 Hz and at 3.5 to 3.7 volts on the low-bass range. Its distortion when delivering 1 volt at 1,000 Hz was 0.022 percent, and its A-weighted noise output was only 20 microvolts, or -94 dB referred to 1 volt.

Our power-handling tests of the Soundfield Ten were made without the SFC-10, and we measured the drive level at the speaker terminals. At 100 Hz the woofer's acoustic-output waveform developed a slight "ripple" resembling a high-order distortion at about 78 watts into its 5-ohm impedance. The effect was not particularly audible, and there were none of the harsh sounds that result from a voice coil or cone reaching the limits of its movement. At 1,000 Hz we measured the output of the midrange cone driver. At 125 watts (into 5 ohms) we heard a slight hardness in the sound. The 10,000-Hz capability of one of the small dome tweeters exceeded the 1,000 watts we were able to generate from our amplifier (into a 3.2-ohm impedance).

Comments

The dbx Soundfield Ten must be judged by its principal design criterion: does it produce a stable stereo image throughout the listening area? And the answer is yes, definitely. As you walk around the

room, the stereo stage remains effectively fixed (and it extends somewhat beyond the speakers themselves). The apparent sound sources do not shift as you approach either speaker until you are directly against one of them. At that point, surprisingly, the speaker *nearest* you disappears acoustically, and only the *other* one can be heard!

Under more normal conditions, nothing changes very much as you move around the room, even to points well beyond the limits set by the positions of the speakers. In A/B comparisons with a pair of very fine forward-radiating speakers, there were striking differences in the stereo stage produced by the two systems when we listened from a point on the axis of one of the speakers. In such cases other speakers show a shift to the side from which they are being heard, but the dbx Soundfield Ten proved to be quite immune to such effects.

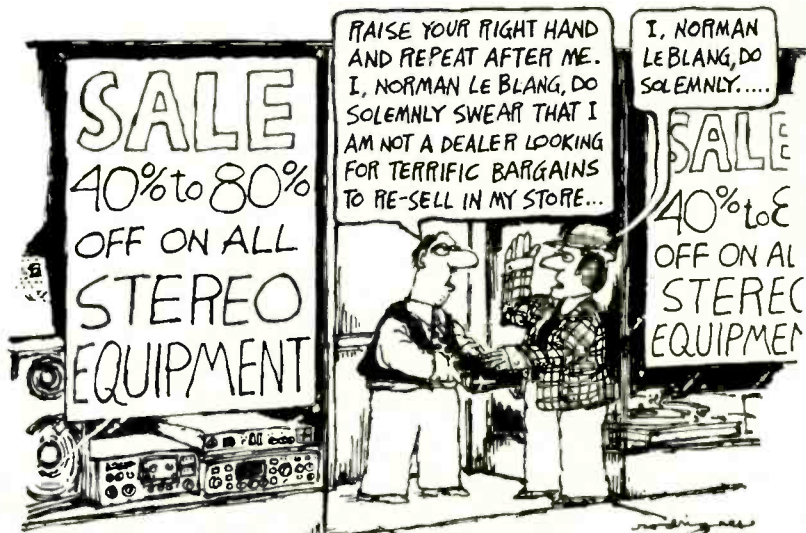
However, there is much more to enjoying reproduced sound than its imaging, which is actually a minor consideration to me, though a critical one to many other people. What about the overall sound quality of the Soundfield Ten? It is smooth, wide in frequency range, and without significant emphasis or de-emphasis of any portion of the spectrum. That is the way it measures and the way it sounds. It is a sound I

can listen to for hours on end, often without awareness of any unusual properties—which is another way of saying that it is quite free of many common loudspeaker aberrations.

If the program contains any deep bass, however, you suddenly become aware that these are no ordinary speakers. I found the most pleasing results in my room with the SFC-10's WALL switch engaged, which reduces the output about 3 dB in the 50- to 200-Hz range and boosts it about the same amount from 300 to 600 Hz, and the LF EQ knob set to 2:00, a moderate amount to low-bass boost. The deep, skin-tingling bass that these speakers can deliver, especially from organ recordings, even at very moderate levels sets them apart from many others.

Without being able to compare the dbx Soundfield Ten directly with the Soundfield One, which had a similarly pleasing effect on us when we tested it, we *can* say that the Ten, at about half the price of the One, comes very close to matching its sound and spatial qualities. We especially appreciate a speaker that can be placed either against a wall or free-standing in almost any room and be heard from any part of the room with all its qualities intact. In short, the Soundfield Ten is an excellent value.

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AUDIO SYSTEMS



TECHNICS SL-XP7 PORTABLE CD PLAYER

*Julian Hirsch, Hirsch-Houck
Laboratories*

THE Technics SL-XP7 portable Compact Disc player aroused considerable interest when it was introduced at last summer's Consumer Electronics Show. Not only is it barely large enough to contain a CD and operable from either a 120-volt a.c. wall outlet or a rechargeable battery in its optional portable carrying case, but it has a full complement of programming and control features. Up to fifteen selections can be played in any sequence, and a forward and backward skip/search feature can move the laser pickup to the beginning of any track or scan through the disc at high speed with the sound audible at reduced level.

The SL-XP7 is only 5 inches square and 1¼ inches high, and it weighs 1.1 pounds. An external a.c. adaptor plugs into a wall outlet and powers the player through a 6-foot cable. Half of the "front panel," which is only about 4½ inches wide and ¾ inch high, is devoted to the LCD display window. Digital readouts show the total number of tracks and total playing time when a disc is first loaded and the number of the current track and its elapsed time during operation. Other parts of the display show the numbers of any programmed tracks, with the number of the one being played blinking on and off, the status of the repeat function, and whether the battery is discharged.

In the center of the panel are three small buttons. One recalls and displays the sequence of the programmed tracks, another switches the main display to show the remaining time on the disc, and the third toggles the repeat mode on and off. To their right are three larger buttons: the forward and reverse SKIP/SEARCH controls and the STOP/CLEAR button. A disc is loaded by pressing the OPEN button on the top

of the case, which pops the cover up so it can be raised by hand to an angle of about 60 degrees, allowing the disc to be placed on its drive spindle. Part of the cover is clear so you can see if a disc is inserted and spinning. The PAUSE/PLAY button is also on top of the case.

In both its sound and operating behavior, this little jewel matched anything we have come across since CD players were first introduced.

On the right side of the case are a miniature stereo headphone jack, a high-filter slide switch, and a volume control. The power switch is on the left side, and in the rear is the DC IN power socket, where the cable from the a.c. adaptor is connected, as well as a second stereo phone jack carrying fixed-level line outputs. A supplied 3-foot cable plugs into this jack, and the left- and right-channel phono plugs on its free end can

drive speakers via an external receiver or amplifier.

The SL-XP7's carrying case/battery pack (SH-CDB7) is only slightly larger than the player itself: 5 $\frac{3}{8}$ inches wide, 5 $\frac{7}{8}$ inches deep, and 2 $\frac{1}{4}$ inches thick. The player "docks" with a power-plug/socket combination at the rear of the case where the a.c. supply is connected to operate the player or recharge the battery, and it is held in the case by a large screw. The bottom inch or so of the case contains the rechargeable nickel-cadmium battery. A shoulder strap is supplied for portable use.

When the player is installed in the case, all its controls and displays remain visible and accessible, although the lid of the case must be opened before the player's cover can be opened. A small POWER SOURCE switch on the front of the case selects either battery or a.c. operation. A red LED shows that the unit is being operated from the power line (or that the battery is being recharged). Price: \$299; SH-CDB7 carrying case/battery pack, \$49. Technics, Dept. SR, One Panasonic Way, Secaucus, NJ 07094.

Lab Tests

We tested the Technics SL-XP7 as we would any other CD player. It was powered from its battery pack, which we fully charged before the tests. According to Technics, it takes 7 hours to charge the battery (12 hours if the unit is being operated simultaneously), and we found 7 hours to be sufficient. The

Not only is the SL-XP7 barely large enough to contain a CD and operable from either a wall outlet or a rechargeable battery, but it has a full complement of programming and control features.

charged battery is rated to operate for 3 hours, and we were able to run it continuously for 3 $\frac{1}{4}$ hours on one charging.

When the battery voltage drops,

FEATURES

- Random track access
- Programmable for playback of up to fifteen selections in any order
- Forward and backward skip/search (with sound audible in search mode)
- Repeat play of entire disc, single track, or programmed sequence
- Headphone jack with volume control
- Switchable high-cut filter
- LCD display shows number of tracks on disc, total playing time, number of track being played, and elapsed time in track or remaining time on disc
- Separate display for numbers of tracks in programmed sequence and selection being played
- Repeat-status indicator
- Battery-charge indicator

TECHNICS SL-XP7
FREQUENCY RESPONSE

LABORATORY MEASUREMENTS

<p>Maximum output level: 1.64 volts</p> <p>Total harmonic distortion at 1,000 Hz: 0.0032% at 0 dB; 0.0018% at -6 dB</p> <p>Signal-to-noise ratio: 92 dB, A-weighted</p> <p>Channel separation: 86 dB at 1,000 Hz; 60 dB at 20,000 Hz</p> <p>Frequency response: +0.3, -0.6 dB from 20 to 20,000 Hz</p>	<p>Cueing time: 3 seconds</p> <p>Impact resistance: sides, B; top, B</p> <p>Cueing accuracy: A</p> <p>Defect tracking: tracked highest defect level of surface damage (black dots) on Philips TS4A test disc; tracked 700-micrometer information-layer damage; simulated fingerprint, pass</p>
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the player stops suddenly—sometimes in the middle of a note! The battery indicator on the display gives no warning of its imminent demise and seems to be intended principally to show when the battery is completely discharged. For listening tests we used both the battery and a.c. power, and we listened both through lightweight headphones and through the amplifiers of several music systems. In addition, because of the portable design of the SL-XP7, we took it along for several miles of brisk walking and a small amount of jogging.

Most of our test results are shown in the accompanying box and graph. The measurements were made using a standard EIA load of 10,000 ohms in parallel with 1,000 picofarads. The two channels had identical output voltages and frequency-response characteristics. The maximum headphone voltage at clipping

was 2.75 volts at 1,000 Hz into a 600-ohm load. This voltage corresponds to 12.6 milliwatts, very close to the player's 15-milliwatt rating, which is based on a 32-ohm load. Although our phones had an impedance of about 200 ohms, the volume was more than adequate.

The ringing on the 1,000-Hz square-wave output from a test disc showed that the player uses analog low-pass filtering in its outputs. The phase shift between channels rose from 6 degrees at 1,000 Hz to 90 degrees at 20,000 Hz, suggesting that a single D/A (digital-to-analog) converter was being multiplexed between the two channels, a reasonable approach for such a highly miniaturized unit. The channel separation, though more than adequate, was somewhat less than we have measured from a few larger players. Since the separation narrowed at a 6-dB-per-octave rate be-

tween 1,000 Hz (86 dB) and 20,000 Hz (60 dB), we suspect that the measured crosstalk arose purely from capacitive coupling between channels (and possibly in the slender two-channel output cable).

The error correction of the SL-XP7, although better than that of almost any of the first-generation CD players we tested about three

The SL-XP7 does not offer wireless remote control, but it is itself hardly bigger than a typical remote-control unit. And have you ever seen a remote control that let you change discs from the listening location?

years ago, was not quite as good as that of most current models. The only respect in which it fell short, however, was in the information-layer-defect portion of the Philips TS4A test disc where the two highest-level sections (defect sizes of 800 and 900 micrometers) caused occasional clicks like an LP record with a fine scratch. In compensation for this minor imperfection, the SL-XP7 was able to slew from Track 1 to Track 15 of the Philips TS4 sampler disc in just under 3 seconds, compared to the usual 4 or 5 seconds. It also flawlessly handled the difficult transition from Track 17 to Track 18 of that disc (the tracks have no silent interval between them), an indication of high accuracy.

Comments

The Technics SL-XP7 was as nearly flawless in its operation as any piece of hi-fi gear we have ever used. In both its sound and general operating behavior this little jewel matched anything we have encountered since CD players were introduced just three years ago. Its size, style, and sound never failed to amaze all those who saw and heard it during our test period. A comparison with current full-size home CD players shows that the principal differences are in programming features. The SL-XP7 does not have

index and phrase programming, which are usually offered only in players that cost considerably more than this one does.

Wireless remote control is another deluxe feature not found in the SL-XP7, but as I sit here with the player almost out of sight under a piece of paper on the desk, I can envision using it at my listening position, with a suitable length of lightweight two-conductor shielded cable connecting it to the amplifier. The SL-XP7 is hardly bigger than a typical remote-control unit, and have you ever seen a remote control that allowed you to change discs from the listening location?

The impact resistance of the SL-XP7 was good but not outstanding. Moderate slaps with the palm on its top and sides usually did not cause loss of tracking, but raps with the knuckles frequently did. The real test of this characteristic came in our "walking" evaluation. On a brisk 3-mile walk, the player mis-tracked only a couple of times when my wrist or elbow struck its case. Impacts against softer parts of the body (side or chest) that were not

uncomfortable to me did not bother the CD player either.

We suspect, however, that the combined weight of the SL-XP7 and its carrying case/battery pack—about 2 pounds, 11 ounces by our measurement—would discourage many joggers or runners from taking it along on their outings. While the weight is not likely to make anyone round-shouldered or flat-footed, it is closer to that of many SLR cameras than to that of a small portable tape player.

Our overall reaction to the Technics SL-XP7 was thoroughly positive. No doubt some people who profess to hear (and care about) the differences between analog and digital filtering, or who are bothered by an 11-microsecond interchannel time delay (the result of multiplexing a single D/A converter between channels), will find this unit unacceptable. For my part, I have never heard anything better, nor can I imagine a smaller, more versatile CD player of comparable or better quality. It is a most impressive achievement.

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3 TOP TURNTABLES

HIGH-END RECORD-PLAYING SYSTEMS FROM KYOCERA, LINN, AND SOTA

BY JULIAN HIRSCH

TO many buyers of audio equipment a tone arm is an integral part of a record player or turntable, and the turntable manufacturer may even supply a cartridge. Usually, however, the cartridge is a separate item, and even the turntable and tone arm may be purchased (and reviewed) separately. No matter how you buy them, you should never lose sight of the fact that these components make up a record-playing *system*. Each of the system's parts is affected by the others, and they should be selected for mutual compatibility. Changing any one of the components—for example, using a different cartridge—could have significant effects on the system's overall measured performance as well as its sound.

The three systems we chose to test together have several common features. The turntables are all belt-driven, the platter/arm subsystems are isolated from the external environment by sophisticated spring mounts, and each system as a whole represents the "high end" of the audio industry.

The Linn Sondek LP12, made in Scotland, has long been considered by many audiophiles as one of the finest (that is, "best sounding") turntables on the market, and its colorful creator, Linn's managing director Ivor Tiefenbrun, has been most successful in promoting the image of its unique sound quality. The Linn mystique has also influenced public perception of the company's other record-playing components, tone arms and cartridges. For our tests, we teamed up the LP12 turntable with the Linn Ittok LV II tone arm (other arms can also be installed on the LP12) and Linn's top-of-the-line Karma moving-coil cartridge.

The designers of the Sota Sapphire turntable have





ROBERTO BROSAN

RECORD-PLAYING SYSTEMS



KYOCERA PL-701 TURNTABLE AND TONE ARM (\$450) WITH AKG P8ES SUPER NOVA CARTRIDGE (\$450)

THE Kyocera PL-701 is a belt-driven automatic record player with a frequency-generator, servo-controlled d.c. motor. Its cast aluminum-alloy platter weighs 3.9 pounds, including the rubber mat. The turntable and arm are mounted on a subchassis made of a nonresonant ceramic-compound resin said to minimize transmitted vibration; the subchassis "floats" on a spring suspension.

The low-mass, straight, tubular aluminum tone arm is moved to the beginning of a record side, and returned to the arm rest, by a separate d.c. motor. Its removable carbon-fiber headshell accepts cartridges that weigh between 3.5 and 10 grams and have standard 1/2-inch mounting centers. Tracking force is applied by rotating the counterweight after the initial balancing. A separate add-on weight is furnished for balancing cartridges weighing between 5.5 and 10 grams. Antiskating compensation is applied by one of the earliest (and simplest) techniques: a thin cord and a weight whose position along a horizontal bar extending from the arm pivot is set according to the tracking force. The tone arm's height relative to the record surface can be adjusted to provide the correct vertical tracking angle.

The PL-701's operating controls, on the upper front edge of the base, remain accessible with the tinted-plastic dust cover lowered. There are pushbuttons for power switching, speed selec-

tion (33 1/3 or 45 rpm), record size (for automatic arm indexing on 7- or 12-inch records), and engaging the repeat function. Larger buttons operate the arm's lift/descent and start/reject functions. The arm may also be cued manually. Lifting it from its rest starts the motor; the return to rest after playing a record is always automatic. Two small knobs adjust the turntable's speed over a limited range. A 10-ounce weight fits over the spindle and holds down the center of the record. The top of the weight carries stroboscope markings for both speeds with either a 50- or 60-Hz a.c. power source.

The P8ES has headed AKG's cartridge line for a number of years, but the "Super Nova" designation indicates that it now has a Van den Hul II stylus. The Van den Hul stylus is contoured to match the geometry of a cutting stylus as closely as possible, and thus to reproduce a recorded signal with a minimum of distortion. The internal construction of this moving-magnet cartridge is basically the same as in previous versions and features a knife-edge stylus-suspension system that prevents the stylus from rotating about its axis. Preventing stylus rotation is claimed to preserve the spatial imaging of the recorded program, and it is especially important with a Van den Hul stylus, which must be precisely oriented to the groove to realize its benefits and to prevent damage to the soft-vinyl groove walls.

gone to unusual lengths to maximize its isolation from vibration or shock and to ensure the best possible coupling between the groove and the playback stylus. In the version we tested, the Star Sapphire, a unique continuous-vacuum hold-down system clamps the entire underside of the record to the mat while it is being played. Like the Linn, the Sota turntable is compatible with a number of separate tone arms, but Sota does not market arms under its own name. Our test turntable was fitted by Sota with a Sumiko Premier MMT tone arm and a Talisman B (boron-cantilever) moving-coil cartridge. (David Fletcher of Sumiko was consulted on the design of the Sota Star Sapphire turntable.)

The third turntable, the Kyocera PL-701, is considerably less expensive than the others—it is best described as a medium-priced rather than a "high-end" product. It has an integral tone arm, and it is the only one of the group to offer automatic operation (the Linn and Sota models are "purist" designs, with no concessions to people who do *not* wish to do it all themselves). For our tests, we selected and installed the new AKG P8ES Super Nova moving-magnet cartridge. The combination with the PL-701 is a fairly costly record-playing system, but it is still only about half the price of the other two.

Installation and Test Procedures

The Linn and Sota players were delivered and set up by representatives of the manufacturers. That is essentially how they are supplied to a purchaser, with the dealer doing the necessary installation and setup adjustment. In fact, Linn makes a point of this aspect of its relationship to its customers and stresses the importance of having the delicate and critical setup process performed by someone with an intimate knowledge of the product.

Although Sota does provide fairly detailed instructions for what appears to be a far more complex procedure than is needed for other record players we have seen, the player's unconventional design and considerable weight (about 44 pounds) make it highly desirable that it be set up and installed by the dealer. Besides, it seems to us that this service is the least you should expect when buying a \$2,000 record

player! In any event, since we did avail ourselves of the service, we cannot comment on the ease, or difficulty, of installing these products. The Kyocera PL-701 bears a closer resemblance to most Japanese turntables, and it proved to be no more or less difficult to set up than most other record players we have used or tested.

We measured the turntables' rumble, flutter, speed, and base isolation in our usual manner. No tests were made on the arms themselves other than measuring the effective mass, the low-frequency resonance with the installed cartridge, and the capacitance to ground of the signal cables and arm wiring. In the Linn and Sota systems, tracking force and antiskating adjustments were left as set by the manufacturers' representatives. In the case of the Kyocera PL-701, we installed the AKG P8ES Super Nova cartridge in accordance with instructions and set its tracking force to the value recommended by the AKG. The outputs of the Linn Karma and Talisman B moving-coil cartridges were passed through a Technics SH-305MC step-up transformer for measurements and during listening tests. The output of the AKG cartridge was terminated as recommended in 47,000 ohms shunted by approximately 470 picofarads.

Standard cartridge measurements were made on each of the systems, including frequency response, channel separation and balance, output voltage, vertical stylus angle, and tracking ability. We listened to each player with the same records, which ranged from some of the better audiophile releases to older favorites. We used an amplifier and speakers congruous in quality and cost with the record-player/cartridge systems.

Kyocera PL-701 Turntable with AKG P8ES Super Nova Cartridge

After we installed the cartridge with the aid of the supplied template, the actual tracking force was within 5 to 10 percent of the indicated setting. We operated the cartridge at its recommended force of 1.4 grams. The tone-arm tracking error was less than 0.5 degree per inch over the full record surface.

The turntable's performance was good (see the table on page 70 for test results on this and the other products). The speed could be ad-

RECORD-PLAYING SYSTEMS



LINN SONDEK LP12 TURNTABLE (\$795) WITH LINN ITTOK LV II TONE ARM (\$520) AND LINN KARMA CARTRIDGE (\$725)

THE Linn Sondek LP12 is a starkly basic turntable supplied on an attractive wooden base with a clear-plastic cover. Its only control is a pushbutton power switch. The platter is belt-driven at 33 $\frac{1}{3}$ rpm; an adaptor is available for "occasional" 45-rpm operation. Its spring suspension—which supports the stainless-steel top plate, arm-mounting plate, and platter system—has a resonance frequency of about 4 Hz and very little damping, resulting in a very "bouncy" turntable.

The Ittok LV II arm is a straight aluminum tube about $\frac{1}{2}$ inch in diameter. Its nonremovable perforated headshell accepts cartridges with standard $\frac{1}{2}$ -inch mounting centers. The arm was clearly not designed for ultra-low mass, but rather to have sufficient mass to resonate at an optimum frequency when fitted with a typical moderately compliant moving-coil cartridge such as those marketed by Linn.

We were informed by the manufacturer's representative who delivered the turntable that no additional arm/cartridge adjustments (for instance, stylus overhang, arm height, etc.) should be made after the arm was installed. The

need for repeated removal and re-installation of the arm during the setup emphasizes the importance of Linn's dealer-installation procedure.

After the arm and cartridge have been balanced with the counterweight, a calibrated dial sets the tracking force, apparently by means of a spring. Antiskating compensation is applied by another dial extending from the arm base. The arm-lift lever is located at the arm's base. A sturdy arm rest near the front of the turntable grips the tube securely when the arm is inserted in it.

We have no information on the Karma cartridge other than that it is a moving-coil model designed by Linn and manufactured for the company in Japan, as is the Ittok tone arm. All our specific information about these products had to be obtained through our laboratory measurements and listening tests. Although there is not much information on the LP12 and its associated components in the instruction booklet, Linn publishes a handsome 43-page booklet called *The Linn Magazine*. It makes for good reading and presents an excellent overview of the company's background and design philosophy as well as its product line.

RECORD-PLAYING SYSTEMS



**SOTA STAR SAPPHIRE TURNTABLE (\$1,600)
WITH SUMIKO PREMIER MMT TONE ARM (\$250)
AND TALISMAN B CARTRIDGE (\$235)**

justed over a range of +5.5 to -2.9 percent at 33 $\frac{1}{3}$ rpm and from +6.4 to -4.1 percent at 45 rpm. The automatic turn-on cycle required 5.5 seconds (from pressing the start button to the stylus's touchdown in the lead-in groove), and the turn-off cycle at the end of the disc took 5 seconds. The arm's lift/descent operation was very smooth and at a reasonable rate. Because of the anti-skating torque, the pickup repeated 2 to 3 seconds of the recording each time it was raised and lowered.

The capacitance (to ground) of the tone-arm and signal cables was 150 picofarads per channel, a fairly typical value and suitable for most cartridges. The P8ES cartridge weighs 4.8 grams, and the combined effective mass of the arm and cartridge was 14 grams. The cartridge compliance and the effective mass resonated at an ideal frequency, 10 Hz. A small double peak in the response indicated a well-damped resonance at about 15,000 Hz. The 1,000-Hz square-wave response (from the CBS STR 112 test record) showed only a single cycle of ringing from that resonance and an otherwise excellent square-wave shape. The frequency-response curves had several small resonant "jogs" be-

tween 80 and 500 Hz that were apparently caused by arm and/or headshell resonances. These are very common in low- and moderate-priced tone arms and apparently have no effect on the sound.

The channel levels of the AKG P8ES cartridge differed by almost 3 dB, considerably exceeding the manufacturer's 1-dB specification. We tested two samples of the P8ES Super Nova, since the first one had an undesirably peaked high-frequency response. The second unit was considerably better in that respect but not very different in its separation and channel balance. The individual response curves supplied with the cartridges did not resemble in any way the results we got from both CBS and JVC test records (the test records AKG used were unspecified).

The cartridge's tracking ability was excellent, however. It had no difficulty with high-level 32- and 1,000-Hz signals from the Cook 60 and Fairchild 101 tests records, and it could also play the 80-micrometer level of the German HiFi #2 record, which is indicative of above-average tracking ability.

The platter and arm of the Kyocera PL-701 are freely suspended,

Of the three turntables we tested, the Sota Star Sapphire was the most unusual and innovative. But despite its technical novelties, it is in most respects as basic as the Linn Sondek LP12, with no automatic operating features.

The vacuum hold-down system is probably the most distinctive feature of the Sota Star Sapphire (the same record player without the vacuum feature is available as just the Sota Sapphire). It is well known that practically every vinyl record is warped to some degree. A mild warp can often pass unnoticed, but more severe warps can cause audible wow or actual cartridge mistracking. Center weights may flatten out a gentle warp but are ineffective against more severe warps. In addition, even the most gradual warp can keep much of the record's surface from firmly contacting the platter mat, thus making it possible for the record to vibrate or move relative to the platter. Such extraneous movement can affect the playing stylus and has been claimed to introduce audible aberrations in the reproduced sound.

Sota's Rodney Herman designed the Star Sapphire to be as free as possible from such effects by creating a vacuum between the disc and the mat that keeps the entire undersurface in intimate contact with the rubber mat, and

with a resonance that we would estimate as about 4 Hz. The player was not unduly sensitive to handling and minor jarring, and its base isolation was excellent. The only operational quirk that bothered us was the result of an effective protection mechanism built into the PL-701. In manual operation, the arm lift keeps the pickup off the record until its button is pressed. It was disconcerting at first to lift the arm from its rest, cue it over a spinning disc, and wait for results! This is no problem once you are accustomed to the player, and in automatic operation the arm descends to the lead-in groove as it is meant to.

Linn Sondek LP12 Turntable with Linn Ittok LV II Tone Arm and Linn Karma Cartridge

The tracking force of the Linn Karma cartridge was set to 1.6 grams by the manufacturer's representative, and we did not change that setting. The absence of arm-tube or headshell resonances was notable, probably an effect, at least in part, of the rigid, large-diameter arm-tube and the integral cartridge

thus with the metal platter itself, to which the mat is cemented. Small holes in the platter near the spindle lead to radial grooves on the mat's upper surface; air is sucked through these grooves and into the holes in the platter to create the vacuum seal. The vacuum pressure can be adjusted between 1 and 3 inches of mercury by a knob on the turntable base. At any setting it pulls the record against the mat, flattening warps and joining it to the rotating system while it is playing.

The vacuum is maintained with the aid of a spindle cap at the center and a lip on the mat that encloses the record edge. When the turntable is first turned on with a record in place, the external vacuum pump provides an initial strong evacuation; in a few seconds, pressure is reduced to normal operating level. After the turntable is shut off, it is easy to pry the record off the platter, if necessary by breaking the vacuum seal at its edge.

The Sota's pump is in a black box measuring about 6½ inches wide, 5 inches high, and 11½ inches deep. The pump is plugged into the a.c. power line, and the turntable receives its electrical power from the pump box, switching the pump on and off together with the platter drive. The 9-foot plastic tube that connects the pump to the turntable allows it to be placed out of

sight (and hearing). Although the pump can be heard during the first few seconds of its operation, it is not audible in normal use.

The Sota Star Sapphire has a highly effective suspension system that isolates the platter and arm from the base on four spring mounts. The system resonates at a very low frequency, 2.67 Hz—most other "soft" turntable suspensions have a resonant frequency of about 4 Hz. The result is to isolate the record-playing components from almost every form of acoustic or vibrational excitation.

The entire unit is supported on three adjustable rubber leveling mounts. To establish the correct weight balance for the suspended system, lead shot is added near the arm base to compensate for differences in weight among tone arms. The four suspension springs, two of them wound clockwise and the other two counterclockwise, are designed to null rotational energy in the turntable/arm system. Even the platter-support bearing is unconventional; not only is it made of sapphire, which is said to wear better than steel, it is located above a fixed support shaft that is surrounded by the rotating bearing sleeve, which is attached to the platter but does not support its weight. The sapphire ball is actually located at the center of gravity of the platter.

eliminating problems with "wobble" or run-out.

The Sota Star Sapphire has five operating controls, two pushbuttons and three knobs. One button is the power switch, and the other changes the speed from 33⅓ to 45 rpm. Each speed has a vernier adjustment knob, and the third knob varies the vacuum pressure. Inexplicably, the controls are not identified on the turntable or in the installation and operating instructions, so identifying the functions requires some trial and error.

The Sumiko Premier MMT tone arm has an S-shaped tube with a conventional four-pin bayonet-mount cartridge shell. The tracking force is set by rotating the counterweight after balancing. The antiskating dial is on a strut extending from the pivot housing, and the cueing-lift lever is at the base of the arm. The arm has viscous damping that is adjustable by a knurled screw above the pivots.

The Sumiko arm was apparently designed to balance relatively heavy cartridges, since an added weight had been installed between the Talisman B cartridge and the headshell. The Talisman B is a slim, low-mass cartridge with a boron-tube cantilever and a line-contact stylus. As with most moving-coil models, the stylus is not user-replaceable.

mounting. The cartridge mass and the stylus compliance were well matched and yielded an ideal resonance of 10 Hz.

Unfortunately, the handling of the Linn LP12 left something to be desired. It was exceptionally sensitive to jarring, and the slightest impact caused the pickup to leave the record surface. Ideally, of course, a record player should be mounted on a rigid surface where it cannot be jarred, but in an imperfect world this is not always possible, and where it is not, the LP12 must be handled, so to speak, with kid gloves. The Linn suspension was much better at resisting vibration (as opposed to impact), about as good as the Kyocera PL-701 or other well-isolated turntables that we have tested.

Other human-engineering "bugs" were also bothersome. For example, the arm-lift lever is so close to the arm that it is difficult to operate without your finger striking the arm—a very risky possibility with a \$725 cartridge installed! And the arm-rest clip is so strong that releasing the arm from its embrace risks a sudden separation and possible destruction of the cartridge. Finally, the plastic dust cover of our test

unit tended to drop suddenly and without warning.

The Linn Karma, like many other moving-coil cartridges, had a rather limited tracking ability. Although it tracked the low frequencies of the Cook 60 test record well, its output waveform showed considerable clipping from the 30-cm/s 1,000-Hz tones on the Fairchild 101 record. And its performance was marginal with the 300-Hz tones of the German HiFi #2 record. It tracked the 40-micrometer level with the initial adjustments, and when we added more antiskating compensation it was able to track the 50-micrometer level—not the kind of performance we would expect of a high-fidelity cartridge. The warp tracking of the Karma/Ittok combination was also mediocre. It tracked slightly warped records well but could not cope with more severe warps that do not bother low-mass pickups. As our listening tests confirmed, however, there is more to cartridge performance than numerical data; more about this later.

The Linn LP12 was the only one of the three turntables without some form of speed adjustment. In our tests it ran 0.25 percent fast, an insignificant error.

Sota Star Sapphire Turntable with Sumiko Premier MMT Tone Arm and Talisman B Cartridge

Like the Linn Karma/Ittok combination, the Talisman/Sumiko had no jogs in its response curve other than those in the record itself. Probably because of the mass-loading of the cartridge (added weight inserted between the cartridge and headshell), the effective arm mass was a high 33 grams, and it resonated with the cartridge compliance at an undesirably low 6 Hz. Although the arm had adjustable damping, this seemed to have no effect on the amplitude of the low-frequency resonance.

Operated at 1.8 grams force, the Talisman B had excellent tracking abilities—better than most moving-coil cartridges we have used. It tracked the Cook 60's low frequencies, delivered an excellent sine wave from the 30-cm/s signals of the Fairchild 101, and tracked the 80-micrometer level of the German HiFi #2 disc. Even our collection of warped records was tracked more successfully than with most pickups we have tested—no doubt thanks in

LABORATORY TESTS

	KYOCERA/AKG	LINN	SOTA/SUMIKO/TALISMAN
Weight (pounds)	20.5	23.5	44*
Dimensions (inches)	18¼ x 15 x 6	17¼ x 13½ x 6	20 x 16 x 7¼*
Rumble (ARLL, decibels)	-63	-62	-63
Flutter (DIN, percent)	±0.08	±0.08	±0.10
Arm/cartridge effective mass (grams)	14	22	33
Arm/cartridge resonance (hertz)	10	10	6
Cartridge output (millivolts)	3.4	0.22	0.39
Frequency-response variations (decibels, 40-20,000 Hz, referred to 1,000-Hz level)	+1.5, -1	+2, -1.5	+7.8, -1.2
Average channel separation (decibels)			
1,000 Hz	21	21	22
10,000 Hz	23	26	24.5
Vertical stylus angle (degrees)	24	24	22
Maximum level tracked on German HiFi #2 test record (micrometers)	80	50	80

* does not include external vacuum pump

part to the Sota turntable's vacuum hold-down system.

The Sota Star Sapphire turntable demonstrated the effectiveness of its suspension system in a most convincing fashion when we measured—or, rather, *tried* to measure—its base isolation. In order to find even a trace of transmission through the base, we had to drive the magnetic transducers coupled to each of the turntable's three base supports at a level 10 dB higher than usual. Even under that extreme condition, we were able to detect only a random signal transmission to the cartridge as it rested on a stationary record.

Our best estimate is that the Star Sapphire's isolation from base-conducted vibration in the audio range is at least 40 dB better than the *best* we have previously measured! "Phenomenal" is the most conservative term we can apply to this performance. We also used our IQS FFT analyzer to establish, if we could, the frequency range of this isolation (our regular measurement only covers the range from 20 to 1,000 Hz). The transmitted energy began to become measurable at about 40 Hz and increased at about

18 dB per octave from there down to about 10 Hz.

Even the super-soft floating suspension, with its 2.67-Hz resonance, did not make the Sota in any way touchy to handle. Jarring it caused the platter and arm to sway like a cork on a choppy sea, but the pick-up rarely lost contact with the groove. It completely ignored ordinary handling shocks. Placed on a sturdy base, which its 44-pound weight surely justifies, it seemed to be immune to anything less than an explosion.

Assessing the Results

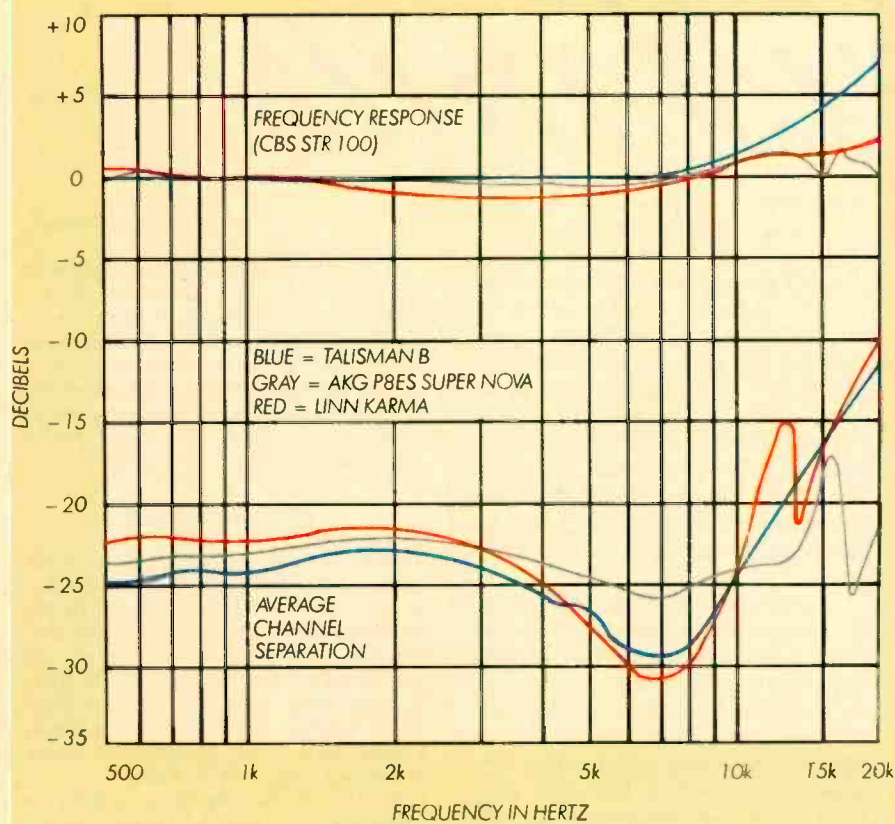
There has been much discussion in high-end audio circles about the "vast" differences in listening quality among turntables. I have never been able to hear such great differences. But test instruments are free of human frailties and not easily swayed by unfounded claims. One of the aims of our tests was to discover what *real*, measurable differences there might be among high-end record-playing systems.

As it turned out, our measurements showed no significant differences in rumble, flutter, and speed constancy among the three turnta-

bles we tested. Moreover, all tone arms did a reasonably adequate job of supporting a cartridge in its journey across a record.

Whatever slight sonic differences we could detect among these three record-playing systems were almost certainly due to their cartridges, and even those differences were quite minor and usually related to measurable qualities. A possible exception was the tracking ability of the Linn Karma, which was marginal. In spite of that, and probably because few music records contain such high levels as our test records, it too sounded just fine. The Linn Karma certainly did sound smooth, clean, and thoroughly listenable. It might be argued that no cartridge is worth \$725, but that is another question. I cannot say with any assurance that any one of these cartridges sounded "better" than any other; such a judgment depends on the record, the speakers, and the listener, among other things.

The cartridges supplied with the Linn and Sota turntables must be presumed to be well suited to their respective tone arms. In the case of the AKG cartridge that we chose for the Kyocera PL-701, things are less



Whatever slight sonic differences we could detect among these three record-playing systems were almost certainly due to their cartridges, and even those differences were quite minor and usually related to measurable qualities.

clear. First, one is normally not likely to choose a \$450 cartridge for use with a \$450 turntable. Unfortunately, some of the other cartridges that we considered using with the Kyocera player proved to be too heavy. Although the turntable's integral arm is supposed to balance a 10-gram cartridge, installing one that heavy places the counterweight too far from the tone-arm pivots.

By and large, the lightweight AKG P8ES Super Nova seemed to be perfectly compatible with the Kyocera in its performance qualities, and that was our chief criterion. We suspect, however, that something was wrong with both cartridge test samples, judging by their out-of-spec channel balance. Despite this, the cartridge sounded very good, with an open, extended high-frequency response that compared well with the cartridges in the other two systems.

But there is more to playing records than listening to them. Awkward handling characteristics, clumsy controls, and the risk of damaging a costly cartridge can affect the desirability of a record player, at least for me, and I expect for quite a few others. Despite the

good sound and excellent tone arm and cartridge of the Linn system, the turntable's cueing lift and arm rest are probably the worst I have ever seen, and the system is excessively sensitive to jarring and even ordinary handling shocks.

In contrast, the Sota Star Sapphire is almost literally a gem among turntables, though it would be difficult to prove by either measurement or listening that its vacuum system was producing listening benefits commensurate with its cost. There must be many audiophiles, however, whose listening rooms, possibly combined with bass-heavy speakers and a taste for high-level listening, make acoustic feedback a real hazard (it is nearly impossible to induce feedback in our room). The Sota Star Sapphire is the turntable of choice in such a situation. If it has feedback problems, switch to CD's or use headphones! Nothing else I have seen comes even close to matching the Sota's solidity and immunity to external influences. While there may be a number of arm/cartridge combinations that would be well suited to the Sota, I can also say that the Talisman B and Sumiko Premier MMT left

nothing to be desired in my experience with them.

While the Kyocera PL-701 is not as glamorous or sophisticated in its design as the Linn or Sota record players, it is nevertheless their equal in almost every important respect—at one-half to one-third the price. It is a fine value, even a "best buy" among these three players. Clearly, the AKG P8ES Super Nova is not an optimum choice for this player when dollar value is considered. The field of choice is wide open, but a low-mass cartridge is recommended.

Not surprisingly, our experience with these exotic and costly record players produced a mixed reaction. Each of them has its strong and weak points, and like most high-end products (not just in the audio field) their considerable extra cost brings at most marginal benefits. Probably their true value is largely in the perception of the user, and we cannot dispute that. Certainly these are not run-of-the-mill products. They are superbly designed and constructed, and you are not likely to find many of your neighbors (or many fellow audiophiles, for that matter) equipped with their like. □

Christmas

Robert Ackart

The record I'd put at the top of my Christmas list is *Méodies sur des poèmes de Victor Hugo* sung by soprano Felicity Lott (Harmonia Mundi HMC 1138). Here is art-song performing of rare refinement, equally sensitive to both music and text.

Of the many opera recordings I have enjoyed and would recommend, three stand out especially. Chabrier's *Le Roi malgré lui* (Erato NUM 751623), despite its wobbly plot, is so inventive and so filled with musical joy that I find myself playing it repeatedly. Gounod's *Roméo et Juliette* (Angel DSCX-3960) is blessed with performances by Alfredo Kraus and Catherine Malfitano that are appealingly convincing, enhancing not only the elegance but also the poignancy of the score. And, finally, the new recording of Mussorgsky's *Boris Godunov* (Philips 412 281-1) illuminates the human drama in this epic work with uncommon musical awareness.

Chris Albertson

In addition to any of the various jazz records and music videos I've reviewed enthusiastically in the last year, I'd like to recommend Christopher Hogwood's performance of Handel's *Messiah* with the Academy of Ancient Music. This work is always appropriate during the Christmas holidays and is especially appropriate in 1985, the three-hundredth anniversary of the composer's birth. Hogwood's return to the original small group of performers gives *Messiah* a quality of intimacy that I find moving. His version is available on records (L'Oiseau-Lyre D189D3) and on video as well (Thorn/EMI TVE-2792 VHS, TXE-2792 Beta) in a performance taped at Westminster Abbey in London. (A review of the video tape appears on page 128.)

Christie Barter

Video Arts International has made available some video cassettes that are reminders of wonderful performances I've seen and heard at the Glyndebourne Festival, and I would recommend them to any music lover equipped with a VCR. All were taped live during performances in the intimate Glyndebourne Festival Opera House.

Two are Mozart operas, for which subtitles are provided: *The Marriage of Figaro* (VAI OP-6 VHS Hi-Fi and Beta

TRYING to buy equipment for an audiophile friend is risky—most audiophiles would rather do that for themselves. It's also expensive. But you can give a welcome gift of music to a friend or relative on your holiday list by choosing something for him to play on his stereo installation. To do that effectively you need to know a little about the recipient's musical tastes and his preferred format: LP's, CD's, or cassettes.

To help you make your choices we have appealed to our record reviewers for expert advice. A few of them responded with specific suggestions for things to give other people, a few told us what they would like to receive (reasoning perhaps that any other music lover in his right mind would want the same thing), and the rest simply sent a list of records they have particularly enjoyed listening to in the last year.

So all of the records and tapes in the following list have the seal of approval of a certified critic. There's enough variety, we think, to help you decide on something for almost any friend. And if you see things you want for yourself, go for them. You probably deserve them. For readers interested in video, our staff has listed the best music video cassettes and LaserDiscs.

The Editors

Hi-Fi), taped in 1973 with Dame Kiri Te Kanawa, Frederica von Stade, Ileana Cotrubas, and Benjamin Luxon, Sir John Pritchard conducting; and *The Magic Flute* (VAI OP-5 VHS Hi-Fi and Beta Hi-Fi), taped in 1978 with Felicity Lott, Leo Goeke, and Benjamin Luxon, Bernard Haitink conducting. The third is Stravinsky's *The Rake's Progress* (VAI-12 VHS Hi-Fi and Beta Hi-Fi) in the delightful production David Hockney designed for Glyndebourne in 1977. The principal roles are sung by Leo Goeke and Samuel Ramey, with Haitink conducting. A fine studio recording of the *Rake* was also released this year by London Records (411 644-1) in which Ramey is partnered by Philip Langridge. Riccardo Chailly conducts on this one, but get the CD version if

you can. I think the sound is considerably better than it is on LP.

A couple of big boxes I'd recommend are "Bill Evans: The Complete Riverside Records" (Riverside R-018), covering the period 1956 to 1964 on eighteen discs, and "Billie Holliday on Verve" (Verve OOMJ 34809), an album of ten discs imported from Japan by PolyGram Classics that covers the period from 1946 to 1959.

Richard Freed

Two recordings of French music issued this year are especially delightful: Chabrier's opera *Le Roi malgré lui* in the performance conducted by Charles Dutoit (the one Robert Ackart cites above) and Angel's three-disc set of all the Ravel songs, sung variously by Gabriel Bacquier, Teresa Berganza, José van Dam, Felicity Lott, Mady Mesplé, and Jessye Norman (Angel DSCX-3965).

RCA's CD transfer of Fritz Reiner's magnificent Chicago Symphony recordings are all treasurable, but especially valuable is the one with Strauss's tone poems *Ein Heldenleben* and *Don Juan* (RCD1-5408). Antal Doráti's CD of Bartók's complete *Miraculous Mandarin* ballet, with the Detroit Symphony, may be the most spectacular orchestral recording yet made (London 411 894-2), and it is coupled with the *Music for Strings, Percussion, and Celesta*. Peter Maag's radiant remake of Mendelssohn's *Midsummer Night's Dream* music is a winner (Denon 33C37-7564).

David Hall

My first choice for gift giving would be a record we cited as one of the month's best a little while ago—a sizzling account of Shostakovich's First Piano Concerto with his son, Maxim, as conductor, and his grandson, Dmitri, as soloist (Chandos ABRD 1120). The runner-up, requiring more of an investment, would be the set of nine Beethoven symphonies conducted by Otmar Suitner (Denon 7251-6), complete on six CD's. To my ear, Suitner's performances have an interpretive consistency and power equalled only by the legendary Felix Weingartner.

The best Christmas record I can think of is one called "The Christmas Revels," which I've given friends as a holiday gift for several years. The singers conducted by John Langstaff on this album are terrific in the old-music repertoire (Revels RC-1078, available



You can have music from CD's wherever you go with a portable like the Technics SL-XP7 reviewed on page 60.



To get the best from gift cassettes you may need a new deck. On page 44 there is a test report on the Akai GX-9.



Whether pop, rock, opera, or jazz, great LP's need great turntables. The Sota Star Sapphire is included in "Three Top Turntables" which begins on page 64.

Music Videos

A varied list of video tapes and discs selected for Christmas giving by the editors

DAVID BOWIE: *Serious Moonlight* (Pioneer). A well-engineered documentary of a 1983 tour stop by a real pro. LaserDisc.

CARMEN (RCA/Columbia). The Francesco Rosi motion picture of the Bizet opera, with Julia Migenes Johnson and Plácido Domingo, Lorin Maazel conducting. VHS Hi-Fi, Beta Hi-Fi.

THE DOORS: *Dance on Fire* (MCA, Pioneer). Early promotional films, television clips, concert footage, and video art film. Produced by Jim Morrison's survivors. VHS Hi-Fi, Beta Hi-Fi, LaserDisc.

GISELLE (Thorn EMI, Pioneer). A dazzling performance of the Adam classic by the Kirov Ballet. Taped live. VHS, Beta, LaserDisc.

THE METROPOLITAN OPERA CENTENNIAL GALA (Pioneer). Taped live at the opera house on October 22, 1983. Two LaserDiscs.

MICHAEL NESMITH: *Television Parts Home Companion* (Pacific Arts). Derives from the similarly titled NBC television series. Comedy sketches and rock videos. VHS Hi-Fi, Beta Hi-Fi.

PAVLOVA: *A Tribute to the Legendary Ballerina* (Sony). Just what the title says it is. Hosted by the actress Leslie Caron. VHS Stereo, Beta Hi-Fi.

QUEEN: *The Works* (Sony). Four new videos, slickly edited. An audio-visual treat. VHS Hi-Fi, Beta Hi-Fi, laser disc.

THE ROLLING STONES: *Video Rewind* (Vestron). The Stones as baggy-pants comedians. Great material. Very funny. VHS Hi-Fi, Beta Hi-Fi, CED disc, laser disc.

SADE: *Diamond Life Video* (CBS/Fox). An artist new to the States this year, but a warmly welcomed one. VHS Hi-Fi, Beta Hi-Fi, laser disc.

TEARS FOR FEARS (Sony). Three compelling videos by a British New Wave duo that won a lot of new American fans this year, too. VHS Hi-Fi, Beta Hi-Fi.

TINA TURNER: *Private Dancer* (Sony, Pioneer). No collection should be without it. VHS Hi-Fi, Beta Hi-Fi. LaserDisc.

for \$9 plus \$1.50 postage and handling charge from Revels, Inc., P.O. Box 290, Cambridge, MA 02138).

Stoddard Lincoln

I always like gifts that are both novel and tasteful, often a difficult combination. Fortunately, a record that fits that description is available this Christmas, an album called "Syrinx" (Erato NUM 75187). Performing on pan pipes, a Rumanian gentleman named Simion Stanciu offers a selection of Baroque concertos in performances that are virtuosic knockouts, every one. Another charmer is an album of short pieces by Rameau in transcriptions for synthesizer by Bob James (CBS IM 39540).

William Livingstone

It has always been STEREO REVIEW's policy that whoever writes liner notes for a record may not review that record in the magazine. Since the policy is not extended to Christmas lists, I'd like to recommend four of my favorites among the records for which I've provided annotation.

Anybody who shares my view that a tango revival is just now beginning should be happy to receive either "The Tango Project" (Nonesuch D-79030) or "Plácido Domingo Sings Tangos" (Deutsche Grammophon 2536 416). Both are collections of famous Argentine tango classics.

"Out of This World" (Philips 411 185-1) is an album of music from movies and TV shows about space. It is performed by the Boston Pops Orchestra conducted by John Williams. Technically this is a particularly fine digital recording, and on CD it makes a truly stunning demonstration disc.

All of the above are available as LP's, cassettes, and Compact Discs. Available on CD only is a new Liszt recording by pianist John Browning (Delos DCD 3022). Delos is particularly good at capturing the sound of the piano, and the selections on this album show off both the brilliance and the poetic aspects of Browning's playing. His performance of the Sonata in B Minor is incandescent. And I'd say my notes for these albums are not bad.

Louis Meredith

In compiling this list, I avoided rock video collections. This may seem like biting the hand that feeds, of course, but in a year in which the distinctions between the stuff you see on MTV, network cop shows, and ads for designer clothing have become (perhaps permanently) blurred, I think I can be excused a little critical crankiness.

That prejudice up front, my Christmas stocking would most definitely be enhanced by the following: "A Night with Lou Reed" (Pioneer PA 85-114 LaserDisc), a 1984 concert that features the Godfather of Punk in peak form and

backed by the most sympathetic band he's worked with since the original Velvet Underground; "British Rock: The First Wave" (RCA/Columbia Musicvision 60468 VHS, 20468 Beta), a splendid documentary look at the original British Invasion put together by the same team responsible for "The Compleat Beatles" and "Girl Groups"; and "The Joe Piscopo Special" (Vestron VA 3062 VHS, VB 3062 Beta), easily the funniest and most intelligent hour of comedy offered for viewing anywhere in the Western World in 1985.

Alanna Nash

My mother always told me to give practical gifts at Christmas, and that carries over into my record selections as well. First of all, what's a record collection without Tina Turner's "Private Dancer" (Capitol ST-12330), a classic if ever there was one. In the country category, I'd recommend Emmylou Harris's "The Ballad of Sally Rose" (Warner Bros. 25205-1). And for rockin' around the Christmas tree, you can't go wrong with Steely Dan's "Aja" (ABC AB-1006) or Elvis Presley's "The Sun Sessions" (RCA APM1-1675), both as timeless as Christmas itself.

Mark Peel

Three records that should be in your best friend's collection but probably aren't are Captain Beefheart's "Clearspot" (Reprise 2115), Patsy Cline's "Greatest Hits" (MCA MCA-12), and the soundtrack to *The Benny Goodman Story* (MCA MCA2-4055).

Peter Reilly

For years Offenbach's music has been so overplayed that it seems like instant Muzak. This is not the case, however, with an album of Offenbach Overtures by the Cincinnati Pops under Erich Kunzel (Vox/Turnabout 34744). His conducting has all the airy froth of vintage champagne sec.

Rossini couldn't be continuously "serious" if he tried, and his lovely *Stabat Mater* (Angel DS-37901) is filled with an undercurrent of pulsing joy and life. Riccardo Muti's conducting is both elegant and stylish.

I don't know what it is I like about the Talking Heads, but whatever it is can be heard on "Stop Making Sense" (Sire 25186-1). I enjoyed this film score enormously. Talking Heads seems to me to be one of the few contemporary groups that catch the real quality of slightly askew looniness that makes up so much of urban life in the mid Eighties.

Steve Simels

All I want for Christmas is *not* my two front teeth. Instead, I want brand-new copies of the following albums:

For starters, there's "Let It Be" by the
(Continued on page 127)

CASSETTE DECKS

WHAT ARE YOUR OPTIONS?

CONSIDER CONVENIENCE AND MAJOR FEATURES AS WELL AS PERFORMANCE QUALITY

BY FRED PETRAS

S ELECTING an audio cassette deck can be an easy matter if you go to extremes—either by choosing a basic, “entry-level” model with a major brand name, which you can buy for as little as \$110 at a discount, or by choosing one of the handful of classic “audiophile” models priced up to \$1,850 at your local audio specialty shop. But if you want to steer a careful course between these extremes, you’re faced with a confusing cornucopia of more than 250 different models from at least fifty manufacturers.

Nevertheless, you can still choose a model that’s right for you with relative ease if you do a bit of homework before you go shopping. The most important part of your homework is deciding your priorities. Is your main concern ease of use or ultimate sound quality? Are you seeking a simple machine, or do you like a lot of flexibility? What optional features are most important to you? And what level of overall quality will you settle for—good, better, or best?

Moving the Tape

One of the key factors in a cassette deck’s performance is how evenly and smoothly the tape moves past the record and playback head (or heads). Uneven tape motion is heard as a warbling sound called wow-and-flutter. A deck’s capstan(s), motor(s), and drive mechanism(s) can all affect the tape motion.



The \$180 Technics RS-B18 (top) features Dolby B, Dolby C, and dbx noise reduction, a single-motor transport mechanism, and two

heads. For \$1,850 you can get the Nakamichi Dragon (bottom) with Dolby B and Dolby C, three heads, autoreverse, dual-capstan drive, five motors, and an automatic azimuth-correction system.

The tape is principally moved by the capstan, a rotating shaft that works with the pinch-roller to pull the tape from the supply hub past the heads and feed it to the takeup hub. Better-quality decks achieve more precise control of tape speed and tension by using a pair of capstans flanking the tape heads, a design called "dual-capstan drive." Two capstans are also used in autoreverse decks, but in nearly every case only one of the capstans is used for each direction of tape motion. Only in the \$1,850 Nakamichi Dragon do you get true dual-capstan drive with autoreverse.

You'll find cassette decks employing anything from one to five motors, and the use of more motors is often touted as improving perform-

capstans, one for the reel hubs, one for positioning the transport mechanism in autoreverse, and one for automatic azimuth correction of the tape heads.

Ideally, a cassette deck should have at least two motors to achieve precise tape movement and reasonable wow-and-flutter specs. And separate reel motors usually provide quicker fast-forward and rewind times. But a single high-quality motor that is properly linked to the other transport elements can also do an excellent job.

How Many Heads?

The vast majority—around 80 percent—of current cassette decks have two heads, one for both recording and playback, the other for erasing previously recorded material. It costs less to make a two-head deck, and apparently most consumers don't need or want the benefits a more expensive three-head model can offer.

While a high-quality two-head deck can do a good job of recording and playing back cassette tapes, its overall performance is likely to be of lower caliber than that of a three-head machine. The reason is that a combined record/playback head is necessarily a compromise.

For the best high-frequency response, a *playback* head should have a magnetic gap of about 1 micrometer. But a *record* head should ideally have a gap of 3 to 5 micrometers if it is to put enough of a signal on the tape to achieve a respectable signal-to-noise ratio (S/N). Manufacturers of two-head machines must settle on a compromise gap width for the record/playback head, and each designer has his own formula for the best possible combination of high-frequency response and S/N. In a three-head deck, of course, the record and playback heads can each have the optimal gap width for its function.

A deck with three heads has another distinct advantage: it permits monitoring the recording while it is being made. If the recording sounds inferior to the source as you switch between them, you will know it right away instead of after it's too late to do anything about it.

Although theoretically a two-head recorder can't perform as well as a three-head model, it can come quite close if the manufacturer uses some of the savings from the two-head design to provide quieter playback electronics. And as a practical mat-



Yamaha's K-720 is an autoreverse, three-head, three-motor deck with Dolby B, Dolby C, dbx, and HX Pro. It also has automatic bias/equalization, manual azimuth adjustment, and programmable playback of up to fifteen selections. Price: \$449.

ance. It's true that the more things a motor has to turn, the harder it is to control the speed accuracy. In a one-motor deck, that motor has to drive the takeup hub and the capstan via a series of gears, belts, and pulleys. A two-motor deck might use one motor for tape spooling, including fast forward and rewind, and the other for the capstan—or both capstans if it has two.

A three-motor autoreverse deck, such as the Yamaha K-720 (\$449), might employ one motor for the capstan(s), one for the hubs, and one to reset the mechanism during autoreverse. Revox's deluxe B215 (\$1,390) has four motors: two for the dual direct-drive capstans and two for the hubs. Tandberg also uses four motors in its TCD 3014A (\$1,450): two for the reel hubs, one for the dual capstans, and one for the tape-gate and braking functions. The Nakamichi Dragon has five motors: two are used for the dual

ter, while three-head decks offer potentially superior sound and greater monitoring convenience, they can have a problem maintaining precise azimuth alignment between the separate playback and record heads. (Azimuth is the angle between the head gap and the tape as it moves across the head; a perfect 90 degrees is the ideal.) Some three-head decks have an external adjustment facility for maintaining the correct azimuth alignment. An example is Hitachi's D-X10 (\$660), which has two tiny knobs on its front panel for independent azimuth adjustment of the record and playback heads.

A three-head deck can be bought for as little as \$250, but I'd suggest investing at least \$400. You'll get a more satisfying instrument.

Autoreverse

If you want the utmost in operating convenience, consider a deck that automatically reverses the tape at the end of a side. Some models offer autoreverse in both playback and record modes, others in playback only. In either case, such decks are designed to achieve the quickest reverse possible while maintaining head alignment. Most good autoreverse decks reverse the tape in less than a second, and Sansui claims that its D-905R (\$699) can do it "without the loss of a single note."

Maintaining precisely the same azimuth between the tape and the head(s) in both directions on an autoreverse deck is difficult and can be expensive. Sometimes the response will be good in one direction but not the other. You can be almost certain that a low-priced autoreverse deck will have poorer high-frequency response in one direction than in the other.

Tape Calibration

Blank cassette tapes vary noticeably in their performance characteristics. For optimal recording results with different tapes, the deck's bias-level setting must be adjustable to match the characteristics of the particular tape being used. On most low-priced decks the bias is only adjustable among the fixed settings for the broad tape types. The deck is usually set up at the factory using a particular brand within each type, and if the manual tells you which brands those are and you stick with them, you can get good results.

Higher-priced decks usually offer manual or automatic bias adjustment for the particular tape being

used. With manual bias controls you can either fine-tune the bias setting by ear or with the help of built-in or external test instruments. Built-in, microprocessor-controlled automatic bias-setting facilities may also adjust the playback equalization and sensitivity for the individual tape, all in a matter of seconds.

One deck in the Akai line, the GX-9 (\$500—see test report on page 44), has both automatic and manual bias calibration. Its "Double Tuning Bias System" quickly adjusts the bias automatically for flat response; then the user can further tailor the bias manually for a crisper, sharp-edged quality or a smoother, mellower sound. The Revox B215 can automatically determine and memorize the optimum recording bias for six different tape formulations, with the settings accessible at the touch of a button.

Noise Reduction

Three different noise-reduction systems are found in today's home



Onkyo's TA-2056 has three heads, three motors, dual capstans, Dolby B and Dolby C, and an automatic microprocessor-controlled bias/equalization adjustment system. Price: \$395.



Sansui's D-W10 is an autoreverse high-speed dubbing deck with two heads and two motors for each transport. It has Dolby B and Dolby C and automatic bias/equalization, and it makes extensive use of microprocessors for control flexibility. Price: \$499.





H

Pioneer's D-X10 is a two-motor, three-head deck with quick auto-reverse, Dolby B and Dolby C, manual azimuth adjustment, manual and automatic bias/equalization adjustment, and microprocessor controls. Price: \$660.

cassette decks: Dolby B, Dolby C, and dbx. Virtually every model has Dolby B, which provides up to 10 dB of high-frequency noise reduction. That's enough to give even a \$150 entry-level deck an acceptable 60-dB signal-to-noise ratio, which is the minimum you would expect from a hi-fi component. Dolby C provides up to 20 dB of noise reduction from the top of the deck's frequency range down to about 200 Hz. The dbx system typically reduces noise by as much as 30 dB over the full frequency range.

Each system has some minor drawbacks too complex to explain here, but each provides a marked improvement in recorded sound quality. Dolby B is suitable for most routine recording projects, especially dubbing popular music from LP's or off the air. But for recording classical music from Compact Discs or other high-quality sources, or for any live recording jobs, Dolby C or dbx would give better results. Dolby B, however, is the "standard" sys-

U

Ultrax's RDC 11 has Dolby B and Dolby C, two heads, one motor, and soft-touch controls. Price: \$130.



tem used by manufacturers for pre-recorded cassettes.

The most significant drawback of the dbx system is that it does not offer the kind of compatibility the Dolby systems do. A dbx-encoded tape can be played back only on decks with dbx-decoding circuitry, while Dolby C tapes can be played on Dolby B decks and Dolby B tapes can be played without any decoding, both with generally acceptable results.

About half of today's cassette decks offer both Dolby B and Dolby C, at prices starting as low as \$130 in the Ultrax line and ranging up to the top Nakamichi model at \$1,850. You can also have the choice of all three systems in various decks from Akai, Luxman, Marantz, Onkyo, Pioneer, Proton, Sansui, Teac, Technics, Ultrax, and Yamaha.

There is another Dolby system that isn't really a noise-reduction system at all, though many people think of it as one. Dolby HX Pro is a headroom-extension circuit that in effect increases the high-frequency storage capacity of a tape. Tapes made on a deck with HX Pro will have better high-frequency response in playback on *any* cassette machine—no special decoding circuitry is needed.

Level Indicators

One advance in cassette-deck technology is evident in the form of the newer record-level indicators. Largely extinct are the old VU-type meters with quivering needles, which often misinformed you of the actual signal strength being recorded, resulting in noisy or distorted recordings. Today's far more accurate peak-reading "meters" are usually in the form of colorful, easy-to-read vertical or horizontal rows of LED's or small fluorescent indicators, one row for each channel.

Like bar graphs, these indicators are segmented so that the signal level can be shown in discrete increments, with each segment representing a range of decibel values. Generally, the more segments, the easier it is to interpret accurately the levels being shown. Be careful, however, since often what looks like three discrete segments will work like one, all flashing on or off together. Watch how the indicator operates during recording.

A basic deck may have level indicators with only a few segments, but deluxe models will have a dozen or more. The Pioneer Elite Series CT-

A9X (\$800) has thirty-five-segment indicators. Better units will also offer a "peak-hold" function, which keeps the indicator segments lit at their peak levels for a few seconds so you can read them more easily and adjust your recording level accurately.

Dubbing Decks

You should avoid the low-price range if you're considering recording on a so-called "dubbing deck" or "double deck," a machine with two cassette wells and two transport mechanisms. While there are at least two dozen such models under \$400, only a few of them offer reasonably high fidelity in the dubs they make—some sound downright awful.

The better dual-transport models, however, offer first-rate playback performance, and their attraction is the convenience of extended play without having to switch tapes. Sequential playback in unidirectional models can give you 90 minutes of unattended listening from two C-90 cassettes. If the deck is a bidirectional autoreverse model, you can get up to 3 hours of playing time. Some models even go a step further with a repeat feature. For example, Pioneer's CT-S99WR (\$460) can be programmed to play the tapes in each well up to six times; Sony's TC-V77WR (\$479) can be set for five replays; and Scott's 695D (\$400) offers four replays.

Microprocessors

A microprocessor can be thought of as the brains of a cassette deck, performing many duties that make operating the deck easier and help it to achieve its highest potential in both recording and playback. For instance, microprocessors are at the heart of various music-search systems, which scan tapes at high speed looking for the silent spaces between recorded selections or sections of a longer work. The simplest systems enable the user to scan a tape, auditioning selections until finding the one he wants to listen to. Higher-priced decks enable you to program any desired sequence of selections for playback; they may also offer automatic or programmed replay.

Microprocessors are also used to control the motors and solenoids in tape transports to achieve foolproof "feather-touch" electromechanical operation, as opposed to the "soft-touch" mechanical transport con-

trols in lower-priced decks. And, as noted previously, some decks use microprocessors to control automatic calibration of bias, equalization, and sensitivity for optimal results. Finally, microprocessors enable a deck's operating functions to be controlled remotely from a wireless infrared unit. The remote may also link a deck to other "dedicated" or synchronized components in an audio or audio/video system for the utmost in operating convenience.

Inputs and Outputs

All home cassette decks come with standard line-level input and output jacks for connecting them to a preamplifier or a receiver's tape loop,



but some decks also have microphone inputs and many have headphone outputs. Mike inputs are obviously useful if you plan to do live recording, though home decks are not usually ideal for this purpose. A headphone output is most useful if it is accompanied by a separate volume control; if not, you may be stuck with a listening level that is either too loud or too soft.

Making Your Choice

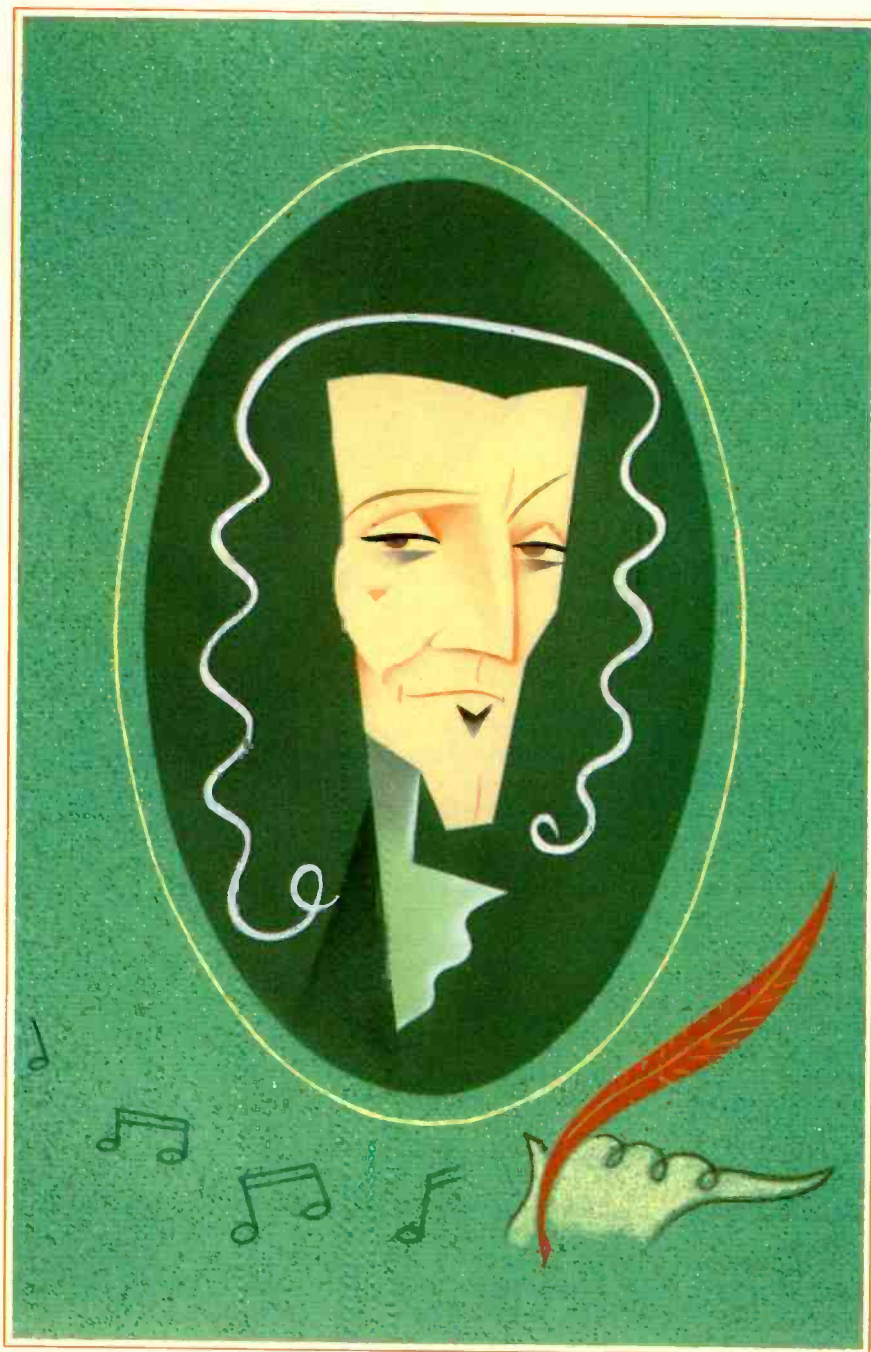
As you can see, there are a lot of options to choose from when you go shopping for an audio cassette deck. While having to make all these choices does complicate the selection process, if you understand all the available features and have determined which ones you need or want, most of the work of narrowing the field is already done. Instead of floundering among 250 models, you'll be able to concentrate on the relatively few models that fit your personal requirements. □



*B*ang & Olufsen's Beocord 9000 is a uniquely styled top-loading, three-head deck with Dolby B and Dolby C, HX Pro, automatic bias/equalization adjustment, and an automatic demagnetization system. Price: \$1,299.

BASIC SCARLATTI

And Others



A record buyer's guide to the music of Domenico Scarlatti, Heinrich Schütz, and John Gay to end the Baroque Birthday Year

by Stoddard Lincoln

As the Big Baroque Birthday Year comes to a close, it seems that almost all the celebrations have centered on the three-hundredth anniversaries of the births of Bach and Handel. Short shrift has been given to Domenico Scarlatti, who was also born in 1685. Nothing has been said about the British composer John Gay, who was born in 1685 too, and not much more attention has been paid to Heinrich Schütz, who was born in 1585!

Although complete sets of recordings of the works of Scarlatti, Schütz, and Gay have not been brought out in anniversary editions this year, there are worthwhile albums of their works that I can recommend to you. And I will have to leave for another occasion any discussion of the discographies of Alban Berg and Jerome Kern, who were born only one century ago in 1885.

Domenico Scarlatti

The son of Alessandro Scarlatti, Italy's foremost operatic composer of the seventeenth century, Domenico Scarlatti followed a fairly predictable course in his career. He started out as a successful opera composer, working his way from Naples, the city of his birth, to Venice, and finally to Rome. In the Holy City he continued theatrical composition for private patrons and at the same time worked his way up in the service of the Vatican. In 1719 he received an invitation from Lisbon to become "maestro of music" for the Royal Chapel and harpsichord teacher of the royal princess, Maria Barbara.

Although he continued composing religious music for Lisbon's Royal Chapel, Scarlatti's main interest seems to have been centered on his royal pupil. When Maria Bar-

bara married Fernando, the crown prince of Spain, in 1728, Scarlatti went along to Madrid as part of her entourage. The relationship with her must have been a felicitous one, since he remained in her service for the next twenty-eight years, until his death in 1757.

During his lifetime Scarlatti wrote a handful of operas, oratorios, serenades, and motets, most of which are lost. His reputation today rests on some 555 harpsichord sonatas, which have become a mainstay of the repertoire. And while record-company observances of Scarlatti's three-hundredth anniversary this year have been skimpy, there are some fine recordings of these sonatas to choose from.

The first modern exponent of Scarlatti's keyboard sonatas was Wanda Landowska. Playing a fully equipped Pleyel harpsichord, she registered the music almost like an orchestral transcription, but her sense of drama, rhythmic control, and sheer virtuosity made up for any anachronisms, and her performances, preserved on discs, make for exciting listening. Forty sonatas are available in a two-disc Seraphim album (IB-6139), which Landowska recorded in 1934 and 1939-1940.

Perhaps the greatest contribution to our knowledge of Scarlatti was made by the late Ralph Kirkpatrick. As a scholar, he wrote the definitive biography, published in 1953, and he catalogued the sonatas as chronologically as possible, which explains the use of "K" numbers often found in their listing today. (These "K" numbers have generally replaced the "L" numbers derived from an earlier edition of Scarlatti's sonatas published by Alessandro Longo.) Kirkpatrick's edition of sixty of the sonatas is in every serious harpsichordist's and pianist's library, and his recordings of some of

these works (Odyssey 32260012) remain as monuments to his dedication as a scholar and as a performing artist.

Then came one of the greatest Scarlatti players of all, Fernando Valenti. Combining all the qualities of Landowska and Kirkpatrick with electrifying dash, Valenti began recording the entire lot for Westminster and turned out at least ten volumes. A great shame of this Scarlatti year is that not one of them is now available.

Among harpsichordists of the present generation, Igor Kipnis has recorded twelve Scarlatti sonatas for Angel (SZ-37310), and he uses the clavichord very effectively for several of them. Trevor Pinnock, who is more historically minded, brings his outstanding talent to thirteen of them (Vanguard 71250).

The American Scott Ross is the most authentic of all of today's Scarlatti players. Ross's two-record set for Teldec (2635487) is only the beginning, however. He is currently recording *all* of the sonatas for Erato in Paris, and they should be available sometime next year, complete in over thirty multi-record volumes.

Vladimir Horowitz makes the sonatas sound very much at home on the piano in his sparkling collection for CBS Masterworks (MS 6411), and pianist Alicia de Larrocha brings her magic to sonatas by both Scarlatti and his pupil Antonio Soler on London (CS 7177).

Guitarists, always on the lookout for suitable music to transcribe for their instrument, have generally found that works for harpsichord sit well on the guitar, and they have not neglected Scarlatti. Among current catalog listings of Scarlatti on records are a recital by John Williams (CBS Masterworks M 34198), which contains six sonatas, and a recital by Manuel Barrueco (Turnabout

34770), which includes five. For the anniversary year Narciso Yepes recorded a whole new album containing twelve sonatas (Deutsche Grammophon 413 783-1), and he performs them in a way that underlines the Spanish element in Scarlatti's work.

An impressive example of Scarlatti's choral writing is the remarkable *Stabat Mater* recorded by John Eliot Gardiner and the Monteverdi Choir (Erato NUM 75172).

Heinrich Schütz

Although Heinrich Schütz (1585-1672) was the greatest German composer of the seventeenth century and the first German composer to achieve international fame, his music has never reached the popularity of such other seventeenth-century composers as Monteverdi and Purcell. Schütz's early studies with Giovanni Gabrieli in Italy, however, brought him into contact with the grand Italian choral style of the time, and his subsequent return there put him in touch with the monodic, or solo, style of Monteverdi. Thus, in his music you hear a rich mixture of choral grandeur, the drama of the Italian solo song, and the inward piety of German Protestant music.

Perhaps the most immediately attractive of Schütz's works is the Christmas Oratorio, with its recitatives and wonderful tableaux depicting the life of Joseph and Mary through the birth of Christ. It is available in a charming performance by the Westphalian Choral Ensemble under Wilhelm Ehmann (Vanguard HM-11). In somber contrast is the moving *Musikalische Exequien*, also recorded by Ehmann and the Westphalian Choral Ensemble (Vanguard 245SD). It is considered by many to be one of Schütz's finest works.

From his early period, when the Italian influence was predominant,



is a set of delightful "Italian" madrigals that Schütz wrote in Italy during his first visit to that sunny country. They have been beautifully recorded by René Jacobs and the Concerto Vocale for Harmonia Mundi (HM 1162). In the grand Italian manner is a collection of "concertos" for instruments and voices with texts taken from the Psalms of David, recorded by the Westphalians for Nonesuch (H-71235). Some of Schütz's most intimate vocal chamber music is found in his *Kleine geistliche Konzerte*, stylishly recorded by the Concerto Vocale (Harmonia Mundi HM 1097).

Certainly the most austere works by Schütz are the three settings of the Passion that he wrote during his last years. The story in each instance is narrated in an unaccompanied, quasi-Gregorian recitative with a *cappella* choral sections for the various crowd scenes. The *St. Matthew Passion* is available in a fine recording by the Hilliard Ensemble (Angel DS-38167). The *St. John Passion* and the *St. Luke Passion* are included in a three-record Vox Box (SVBX-5102) along with the *St. Matthew Passion*. Here all three are performed by the Cologne Pro Musica.

John Gay

Last and least of this year's anniversary notables is John Gay (1685-1732), who has received absolutely

no attention at all. His contribution to music is a curious one: *The Beggar's Opera*, for which he wrote the bawdy play, selected popular tunes, and wrote saucy texts. He not only established the ballad opera as a genre but almost put Handel out of business.

Many arrangements of *The Beggar's Opera* exist, ranging from the original by Gay's contemporary, John Pepusch, to a most delightful setting by Benjamin Britten. The best recording is a stellar one, with Joan Sutherland and Kiri Te Kanawa, conducted by Richard Bonyngue on London (LDR 72008), and various versions of a few of the songs from the work are set forth by the Broadside Band on Harmonia Mundi (HM 1071).

And so the year-long birthday party is coming to an end. Like most parties, it has had its ups and downs, and some honored guests got more attention than others. If things ever seemed to be getting too serious, there was always a little comic relief at hand.

Graziano Mandozzi had some fun with his synthesizer in "Bach/Handel 300" (Deutsche Grammophon 415 110-1), and Dag Ingram (accordion) and Michael Copley (flute) amused themselves in "The Cambridge Buskers Handel Bach" (Deutsche Grammophon 415 469-1). Coming at the end of the Big Baroque Birthday Year, it is a sort of party favor in which the Buskers affectionately tease not only Bach, Handel, and Scarlatti, but also Albinoni, Corelli, Pachelbel, Vivaldi, and others.

The record companies are tooling up for a different kind of celebration next year. They are pulling out the Wild Romantic stops because in 1986 we will be observing the hundredth anniversary of the death of Franz Liszt. Don't expect a lot of comic relief in that. □

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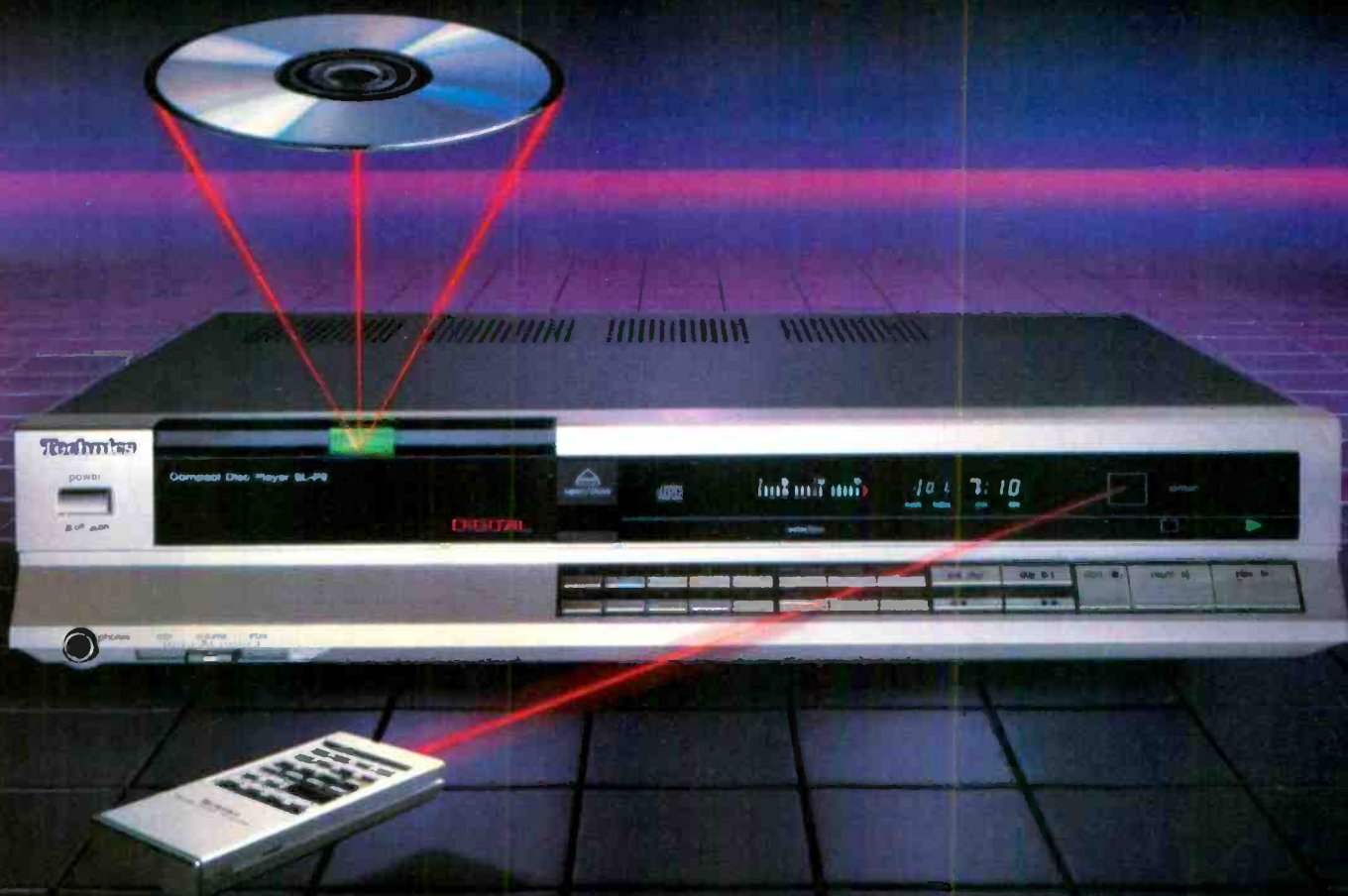
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CIRCLE NO. 5 ON READER SERVICE CARD

Stereo Review's critics choose the outstanding current releases

DRAMATIC NEW "MESSIAH" RECORDINGS

WHILE making his new recording of *Messiah* for Philips, Sir Colin Davis told his chorus, "Ladies and gentlemen, forget Bach, forget the Mass in B Minor, forget the *St. Matthew Passion*. This is a different world. This is the world of Italian opera!"



George Frideric Handel

So, indeed, *Messiah* is—Italian opera raised to a special level by virtue of its spiritual content, but still gripping musical theater. That is certainly what the new Davis recording sounds like, and it is true also of the *Messiah* conducted by Sir Georg Solti and released by London Records earlier this year.

There is little to choose between these two versions of *Messiah*, not because one is better than the other but because both are exceptionally good. In this instance, comparisons are indeed odious. I can only state a few highly subjective preferences.

Of the two, I found Davis's recording, with the Bavarian Radio Chorus and Orchestra, tonally richer and fuller. Possibly this was because I heard it on Compact Disc, whereas my review copy of Solti's

was the LP set. On the other hand, the more brilliant sound of Solti's Chicago Symphony is undeniably stirring, and on CD it should sound even more so.

Davis's reading of the score is possibly more lyrical than Solti's, which seems tighter—though not "driven" in the way his performances sometimes are. I do not mean to imply that Davis's conducting lacks drama and tautness, or that Solti's wants tenderness; these are only overall impressions.

I prefer the warmth and weight of Margaret Price's soprano, on the Davis recording, to Kiri Te Kanawa's cooler and lighter voice, on the Solti. Dame Kiri sings with exquisite taste, however, and both artists negotiate the coloratura passages with ease. The contraltos and tenors are equally effective on both recordings. Simon Estes sings for Davis with greater conviction, I feel, than Gwynne Howell does for Solti, although Howell's powerful bass voice is quite deftly handled nevertheless.

The Bavarian Radio Chorus sings the text with admirable clarity, a virtue we have long since come to take for granted with the Chicago Symphony Chorus, so well trained by Margaret Hillis. Both choruses sing with passion, accuracy, and, when called upon to do so, breathtaking delicacy. On both recordings the harpsichord and trumpet soloists are first-rate.

I highly recommend both of these recordings. Your collection will be made richer by the addition of either one, especially in this holiday season. *Robert Ackart*

HANDEL: *Messiah*. Margaret Price (soprano); Hanna Schwarz (contralto); Stuart Burrows (tenor); Simon Estes (bass); Bavarian Radio Chorus and Orchestra, Sir Colin Davis cond. PHILIPS 412 538-1 three discs \$29.94, © 412 538-4 three cassettes \$29.94, © 412 538-2 three CD's no list price.

HANDEL: *Messiah*. Dame Kiri Te Kanawa (soprano); Anne Gjevang (contralto); Keith Lewis (tenor); Gwynne Howell (bass); Chicago Symphony Chorus and Orchestra, Sir Georg Solti cond. LONDON 414 396-1 three discs \$29.94, © 414 396-4 three cassettes \$29.94, © 414 396-2 three CD's no list price.

MARSHALL CRENSHAW: "DOWNTOWN"

MARSHALL CRENSHAW'S debut album was one of the greatest summer-time cruising-with-the-top-down rock-and-roll records ever made, as sublime a slice of Pure Pop for Now People as has yet emerged in this otherwise forgettable decade. "Downtown," Crenshaw's newest release, may lack the breathless immediacy of that stunning debut, but his really special gift—the ability to reinvigorate fairly circumscribed genre music without a hint of Eighties revisionist irony—is on display all over the album.

Produced jointly by the artist, cult hero T-Bone Burnette, and Larry Hirsch, with collaboration on one

Crenshaw: a voice of haunting sound



VICTORIA PEARSON

track by R.E.M.'s mentor Mitch Easter, the record is stylistically and sonically of a piece with Crenshaw's earlier work. As before, the emphasis is on intriguing and transparent musical textures (*Blues Is King*—which, despite the title, is not blues), insinuating melody (*Like a Vague Memory*), and the haunting sound of Crenshaw's voice (pick any cut).

Whether he's doing modified rockabilly (*Little Wild One*) or McCartneyesque winsomeness (*Lesson Number One*, an absolutely gorgeous neo-country pop tune), Crenshaw's models seem to appeal to him mostly on a formal level. The songs don't have much subtext, but they are intelligent nonetheless. And just the title conceit of *I'm Sorry (But So Is Brenda Lee)* suggests more wit than will ever manifest itself on, say, an album by Mötley Crüe.

Mostly what we get in "Downtown" is a mature, almost autumnal-sounding overview of thirty years of jukebox pop in the tradition of Buddy Holly. Crenshaw's new songs are well crafted and subtly surprising, and they rock out, but with an almost Olympian restraint and dignity. His flawlessly logical guitar work acts as the glue holding everything together as the songs skip from archetype to archetype (though guest guitarist G. E. Smith nearly steals the show with his solo on *Yvonne*).

Why did they call it "Downtown"? A tribute to the lower-Manhattan neighborhood where Crenshaw lives? A reference to the 1964 British Invasion hit by Petula Clark? I don't know. What I do know is that, in its becomingly understated way, this is one of the most appealing records I've heard since . . . oh, since the first one by Marshall Crenshaw. *Steve Simels*

MARSHALL CRENSHAW: *Downtown*. Marshall Crenshaw (vocals, guitar); G. E. Smith (guitar); Tony Levin (bass); Robert Crenshaw (drums); other musicians. *Little Wild One (No. 5)*; *Yvonne*; *Blues Is King*; *Terrifying Love*; *Like a Vague Memory*; *The Distance Between*; *(We're Gonna) Shake Up Their Minds*; *I'm Sorry (But So Is Brenda Lee)*; *Right Now*; *Lesson Number One*. WARNER BROS. 25319-1 \$8.98, © 25319-4 \$8.98.

DUTOIT'S TRIUMPHANT BERLIOZ

NOT at all surprisingly, the *Symphonie fantastique* of Berlioz is one of the most heavily represented of all titles on CD. The work is just the thing to show off the advantages of

and the 1978 analog recording might pass for a digital one, especially in the fine CD transfer. But there can be no denying the sonic superiority of the new London, which in terms of realism is the most stunning recording yet of this much-recorded work.

Actually, Païta's and Dutoit's readings show enough contrast to justify having both. The Païta performance is surely the more highly charged, the more spontaneous-sounding and irruptive. Dutoit



Dutoit: the most stunning *Symphonie fantastique* yet

the new medium, but none of the nine previous CD versions of it shows them off quite as impressively as Charles Dutoit's new one with the Montreal Symphony on London. It seems incredible that the Montreal Symphony was unknown on records until the Dutoit *Daphnis et Chloé* came out only four years ago. That release introduced a new world-class orchestra, and Dutoit has maintained that heady standard with conspicuous success.

For the last several years my choice among all recordings of the *Symphonie fantastique* has been the one by the London Symphony under the Argentine conductor Carlos Païta, now on Lodia. Païta has an unmistakable flair for Berlioz's music, the LSO plays superbly for him,

takes a somewhat more expansive view, the element of spontaneity yielding to a meticulously thought-out exposition of the work that has great sweep yet allows the music to breathe very comfortably. The first-movement repeat is taken by Dutoit but not by Païta; both omit the optional cornets in the second movement. Dutoit takes all three of the inner movements more broadly, which gives the waltz and the *Scene in the Fields* a tinge of dreamlike haze and the march a sense of implacable terror. The very end could have been more fizzy, but the sonic definition is thrilling in its own right.

The recording, in fact, is at least as much a triumph for the engineers as for the musicians, and the Lon-

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CIRCLE NO. 50 ON READER SERVICE CARD

BEST OF THE MONTH

don engineers rate high marks in particular for the handling of the bells in the finale, which for once really do sound *lontano* instead of as if they were being whanged right against the microphones. Musically, I expect to enjoy alternating this *Fantastique* with Païta's. In the "sonic showcase" category it simply sweeps the field. *Richard Freed*

BERLIOZ: *Symphonie fantastique, Op. 14*. Montreal Symphony Orchestra, Charles Dutoit cond. LONDON 414 203-1 \$10.98, © 414 203-4 \$10.98, © 414 203-2 no list price.

THE INNER FIRE OF BILLY BANG'S JAZZ VIOLIN

THE neighborhood kids nicknamed Billy Walker "Bang" when he was growing up in the South Bronx. That's tough territory. You will find no yuppies there, only the remnants of neighborhoods that were once proud, streets littered with neglect, and an air filled with militancy, defeat, political rhetoric, laughter, and sorrow—all set against the rhythms of Black American and Hispanic music. When he left the old neighborhood, Billy Bang took with him the essence of this blend, and it continues to permeate his music today.

Bang had played violin as a child,

but it did not fit the macho image dictated by his environment, so he gave it up. Several years later he heard Leroy Jenkins and was inspired to go back not only to the violin, but also to the music of Stuff Smith and other jazz violin virtuosos of the past. These influences, too, turn up in Bang's music, and nowhere have I heard it distilled as well as on a new album that takes its title from yet another source of inspiration to Bang, Carlos Castaneda's book *The Fire from Within*. And what an appropriate title!

The album's seven selections were composed by Bang and bear the book's chapter titles. The instrumentation is unusual—violin, trumpet, marimba, guitar, drums, and cowbells—and while that in itself gives the music a unique sound, what really makes it exciting is, indeed, the fire from within: the hot breath of Bang's influences, the creativity with which he brings it all together, and the drama with which he executes it. This is music for everybody—it is modern, it is traditional, and it will move the toes as easily as it moves the mind and emotions. *Chris Albertson*

BILLY BANG: *The Fire from Within*. Billy Bang (violin); Ahmed Abdullah (trumpet); Thurman Barker (marimba); Oscar Sandees (guitar); William Parker (bass); John Betsch (drums, cowbells); Charles Bobo Shaw (cowbells). *The Glow of Awareness; The Nagual Julian; The Shift Below; The New Seers; Inorganic Beings; Petty Tyrants; The Mold of Man*. SOUL NOTE/POLYGRAM SPECIAL IMPORTS SN 1086 \$9.98.

Bang: the essence of the old neighborhood



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- COCK ROBIN.** COLUMBIA CK 39582. "Impressive debut" (November 1985).
- CHICK COREA:** *My Spanish Heart*. POLYDOR 825 657-2. "Sprightly imagination, delicate touch" (May 1977).
- ELLA FITZGERALD AND LOUIS ARMSTRONG:** *Ella & Louis*. VERVE 825 373-2. Selections from the two-record set.
- DAN FOGELBERG:** *The Innocent Age*. FULL MOON/EPIC E2K 37393 (two CD's). "Distinctive" (February 1982).
- STEVIE WONDER:** *Love Songs*. TAMLA/MOTOWN TAMD-6144. Twenty "greatest hits."
- PAUL YOUNG:** *No Parlez*. COLUMBIA CK 38976. "Soulful intensity, elegantly produced" (March 1984).

CLASSICAL

- BARTÓK:** *Concerto for Orchestra; Music for Strings, Percussion, and Celesta*. Karajan. DG 415 322-2. "Bartók with a silk-and-satin finish" (March 1975).
- CHOPIN:** *Waltzes (complete)*. Rubinstein. RCA RCD1-5492. Recorded by the late pianist in 1963.
- HANDEL:** *Concerti grossi, Op. 6, Nos. 9-12*. Pinnock. ARCHIV 410 899-2. Completing the set. "Superb" (April 1983).
- PUCCINI:** *La Bohème*. Caballé, Domingo, Milnes; Solti. RCA RCD2-0371 (two CD's). "A fine one" (December 1974).
- PUCCINI:** *Tosca*. Callas, Di Stefano; De Sabata. ANGEL CDCB-47174 (two CD's). A landmark, recorded in 1953 and digitally remastered.
- RACHMANINOFF:** *Preludes; Piano Sonata No. 2*. Ashkenazy. LONDON 414 417-2 (two CD's). "Eclipses the competition" (October 1976).
- WAGNER:** *Die Meistersinger*. Fischer-Dieskau, Domingo; Jochum. DG 415 278-2 (four CD's). "A deeply felt performance" (March 1977).

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BACH: *St. Matthew Passion*. Peter Schreier (tenor), Evangelist; Theo Adam (bass), Jesus; Lucia Popp (soprano); Marjana Lipovšek (alto); Eberhard Büchner (tenor); Robert Holl (bass); others. Rundfunkchor Leipzig; Staatskapelle Dresden, Peter Schreier cond. PHILIPS 412 527-1 four discs \$39.92, © 412 527-4 three cassettes \$39.92, © 412 527-2 three CD's no list price.

Performance: *Mannered*
 Recording: *Excellent*

In an attempt to apply early performance practices to modern forces, Peter Schreier has come up with an uncomfortably mannered performance of Bach's *St. Matthew Passion*. Some of the articulation is so exaggerated that it becomes galling after a while. The opening chorus, for example, is taken almost too quickly, and the insistent downbeat and clipped phrasing strip the music of its dignity. Even though the articulations might be correct, they come naturally to early instruments but are labored on modern ones.

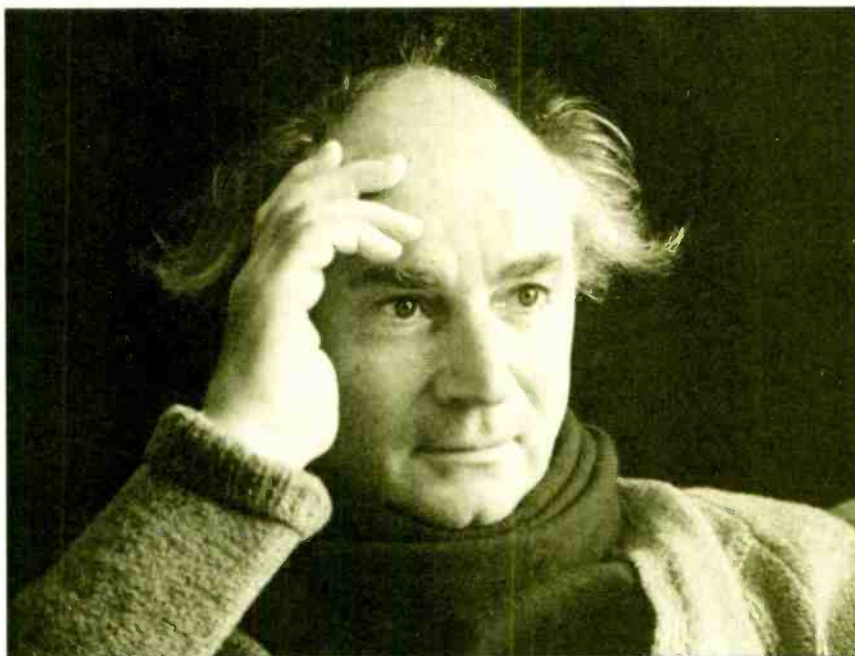
The chorus is fine where it sings as the mob, but the chorales are so arbitrary in their use of decay and rubato that the simplicity of congregational singing (the strength of the chorales) is entirely lost. Schreier is a fine-sounding Evangelist, but his projection of the drama is so overdone that his performance verges on melodrama. And however fine Lucia Popp and Theo Adam are as artists, they are now vocally just beyond their prime and have to work rather hard at their singing. While it is certainly a pleasure to hear a female alto for a change, Marjana Lipovšek lacks warmth and a strong low register.

In sum, this is a very disappointing *St. Matthew Passion*. Striving to combine two styles of performance practice, it fails to achieve a satisfying result in either. S.L.

BERLIOZ: *Harold in Italy, Op. 16; Roman Carnival Overture, Op. 9*. Wolfram Christ (viola); Berlin Philharmonic Orchestra, Lorin Maazel cond. DEUTSCHE GRAMMOPHON ● 415 109-1 \$10.98, © 415 109-4 \$10.98, © 415 109-2 no list price.

Performance: *Excellent*
 Recording: *Good*

This first Compact Disc recording of the brilliant and much-abused *Roman*



KUBELIK'S BRUCKNER

BRUCKNER'S Third Symphony, which might be called the first of his truly great symphonies, exists in three distinct versions, all available on records now. The original version of 1873, recently recorded by Eliahu Inbal and the Frankfurt Radio Orchestra (Teldec 6.42922), is a sprawling affair with conspicuous direct quotations from Wagner and much in need of the pruning Bruckner gave it a few years later in the version published in 1878. The version most favored in concerts and on recordings, however, has been the "final revision" of 1889, in which Bruckner accepted the excessive cuts and other unfortunate modifications suggested by his well-intentioned disciple Franz Schalk. Karajan's DG recording (2532 007) is of this version, in the edition of Leopold Nowak.

No one but Bruckner had a hand in the 1878 version, which is surely the most satisfying of the three, and it is rather astounding that the new CBS recording of it by Rafael Kubelik and the Bavarian Radio Symphony appears to be the first since Bernard Haitink's splendid account on Philips came out twenty years ago. It is no less astounding that Kubelik, a fine Brucknerian,

has recorded only one other of this composer's symphonies, the Fourth, with the same orchestra on the same label; it was discontinued after a very brief catalog life. In the Third he is every bit as convincing as Haitink—a little more litting in some spots in which Haitink tends to drive a bit harder, but in general very like-minded throughout the work—and digital recording gives his release a decided sonic edge. The sound is not as outstanding as on some other recent CBS orchestral issues, but it is conspicuously richer and more spacious than that of the Philips, which tends to be congested in climaxes. Both LP's break for turnover at the same point in the slow movement. This inconvenience, of course, will not be a factor when the Kubelik appears on CD, and that should be the ideal way to enjoy this work. In the meantime, the LP is enormously welcome and moves to the top of the list in that format.

Richard Freed

BRUCKNER: *Symphony No. 3, in D Minor (1878 version)*. Bavarian Radio Symphony Orchestra, Rafael Kubelik cond. CBS ● IM 39033, © IMT 39033, no list price.

Carnival Overture is a sizzling one, and Lorin Maazel's reading of *Harold in Italy* (the second on CD) also stands up well against the currently available recorded competition. While there have been more than a dozen recordings of *Harold* since the advent of stereo, few seem to have a long catalog life.

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Maazel's solo violist, Wolfram Christ (just out of his thirties), displays a lovely, dusky tone that emerges beautifully from the composer's colorful orchestral fabric, to which Maazel seems to have a natural affinity. The more dramatic sections, such as the brigands' orgy at the end, come off particularly well, but Maazel also has an acute ear for the more atmospheric episodes. His pacing is excellent throughout, and free from the mannerisms that have occasionally marred his readings.

The recording itself is rich in sound. The microphone placement seems fair-

ly close, but not uncomfortably so. As always in the CD format, the lack of background noise is a plus, and so is the pleasure of hearing the entire recording without having to interrupt to turn over a disc. *D.H.*

BERLIOZ: *Symphonie fantastique* (see Best of the Month, page 86)

CHOPIN: *Piano Concerto No. 2, in F Minor, Op. 21*. SCHUMANN: *Piano Concerto in A Minor, Op. 54*. András Schiff (piano); Concertgebouw Orchestra, Antal Dorati cond. LONDON ● 411

942-1 \$10.98, © 411 942-4 \$10.98, © 411 942-2 no list price.

Performance: *Refined yet virile*
Recording: *Good*

Elegance without preciosity distinguishes the solo work of András Schiff in both the Chopin and Schumann concertos. In the Chopin he is most impressive in the slow movement, with its dramatic recitative episode, and in the mazurka-style episodes of the finale. Antal Dorati provides unusually sympathetic collaboration, making the most of the lovely low-woodwind coloration of the inner voices and doing wonderfully by the *col legno* and horn-call passages in the third movement. The only sonic fly in the ointment is a dose of overly resonant timpani in the finale, probably a result of the Concertgebouw auditorium's reverberation characteristics.

The Schumann, for my taste, fares better on all counts, with solo work that is both virile and tender, and splendidly solid over appropriately propulsive orchestral backing. I would rate this performance a close rival of the best recording by Stephen Bishop-Kovacevich with Colin Davis on Philips.

A major plus for this recording as a whole is the beautiful instrument Schiff plays, which enables him to produce a warm tone across the entire keyboard range, totally free from the hard mid-range that characterizes all too many modern concert grands used to record the high-Romantic repertoire. *D.H.*

CZERNY: *Variations on "La ricordanza"* (see GRIEG)

GRIEG: *Ballade, Op. 24; Holberg Suite, Op. 40; Peer Gynt Suite No. 1, Op. 46; Arietta, Op. 12, No. 1; Butterfly, Op. 43, No. 1; Little Bird, Op. 43, No. 4; Erotik, Op. 43, No. 5; Brooklet, Op. 62, No. 4; At Your Feet, Op. 65, No. 3; Vision, Op. 65, No. 5; Wedding Day at Trolldhaugen, Op. 65, No. 6*. CZERNY: *Variations on "La ricordanza," Op. 33*. LISZT: *Polonaise No. 1, in C Minor*. Ivan Davis (piano). AUDIOFON 2021/2022 two discs \$23.96.

Performance: *Warmhearted*
Recording: *Crystalline*

A curious-looking collection: three sides of Grieg, a fourth shared by Czerny and his most famous pupil—and the "big" Grieg items, except for the vast *Ballade*, are works that are more familiar in orchestral garb. Indeed, there would seem to be an argument for presenting the *Holberg Suite* here, since Grieg did compose it originally for piano, but why the *Peer Gynt Suite*? In any event, the four sections prove to be quite in character with the various *Lyric Pieces* scattered among the three sides as fillers after the big works, and it all certainly seems to work in Ivan Davis's sympathetic performances.

In the Liszt and Czerny as well as in the Grieg, Davis focuses on the lyrical quality of the music rather than the obvious opportunities for surface glit-

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ter. The whole set exudes the sort of expansive, endearing character epitomized by his warmhearted but by no means overindulgent performance of *Wedding Day at Troldhaugen*. Simply lovely, all of it, and recorded with the crystalline clarity one hardly takes for granted even on Compact Discs, let alone analog LP's. *R.F.*

HANDEL: *Messiah* (see *Best of the Month*, page 85)

HANDEL: *Water Music*. Scottish Chamber Orchestra, Sir Alexander Gibson cond. CHANDOS ● ABRD 1136 \$11.98, © ABTD 1136 \$11.98, © CHAN 8382 \$17.

Performance: *Solid*
Recording: *Very good*

This is a solid, straightforward performance of Handel's *Water Music*, one that brings out its brisk joviality and rhythmic energy. With so many recordings of this work available, though, especially ones on early instruments that offer the splendors of true Baroque sound, there is no real need to add this one to your collection. *S.L.*

IVES: *Piano Sonata No. 1*. Herbert Henck (piano). WERGO ● WER 60101 \$11.98, © WER 60101-50 \$17.

Performance: *Persuasive*
Recording: *Close-up*

For all its quintessential Americanism, Charles Ives's music neither requires nor relies on a parochial approach—any more than Carl Nielsen's requires Danish performers or Dvořák's is playable only by Czechs. The field has been open for a really outstanding modern recording of Ives's Piano Sonata No. 1, and there need be no embarrassment in acknowledging that this need has been filled by a German pianist on a German label. The Ivesian character of the sonata seems to have been fully absorbed by Herbert Henck, a thirty-seven-year-old specialist in twentieth-century music, and he backs his remarkably persuasive performance with his own comprehensive annotation, which includes citations of the American Ives authorities Lou Harrison and Sondra Rae Clark as well as a short bibliography.

I'd have preferred a little more distant sonic focus in the recording itself, but the close-up piano sound is exceptionally realistic. *R.F.*

LISZT: *Polonaise No. 1* (see GRIEG)

LISZT: *Totentanz; Malédiction; Hungarian Fantasia*. Jorge Bolet (piano); London Symphony Orchestra, Ivan Fischer cond. LONDON ● 414 079-1 \$10.98, © 415 079-4 \$10.98, © 415 079-2 no list price.

Performance: *Top-drawer*
Recording: *Very good*

A Lisztian *par excellence*, Jorge Bolet here takes on three of Liszt's keyboard spectaculars. The highly idiomatic ac-

companiments are provided by the London Symphony under the direction of Ivan Fischer, one of the most gifted of Hungary's conductors today.

Record collectors with long memories may recall the late-1930's recording by Jesús María Sanromá with the Boston Pops under Arthur Fiedler of the knucklebusting *Totentanz*. I have heard many recordings over the years of this piano-and-orchestra paraphrase of the Gregorian chant *Dies Irae*, and none has conveyed quite the fire and brimstone of Sanromá and Fiedler's—until now. Bolet and Fischer have duplicated the chilling effect of that early recording.

Malédiction was completed in 1840, almost a decade before *Totentanz*, and evidently derives its title from the startlingly dissonant opening motif. Otherwise, despite the highly effective solo writing, the greater part is of relatively conventional cut. The Hungarian Fantasia, a piano-and-orchestra expansion of the Hungarian Rhapsody No. 14, receives a highly imaginative treatment here, both colorful and fanciful, from Bolet and Fischer. Bolet's pianism in all three works is both dazzling and imbued with all the romantic warmth you could desire.

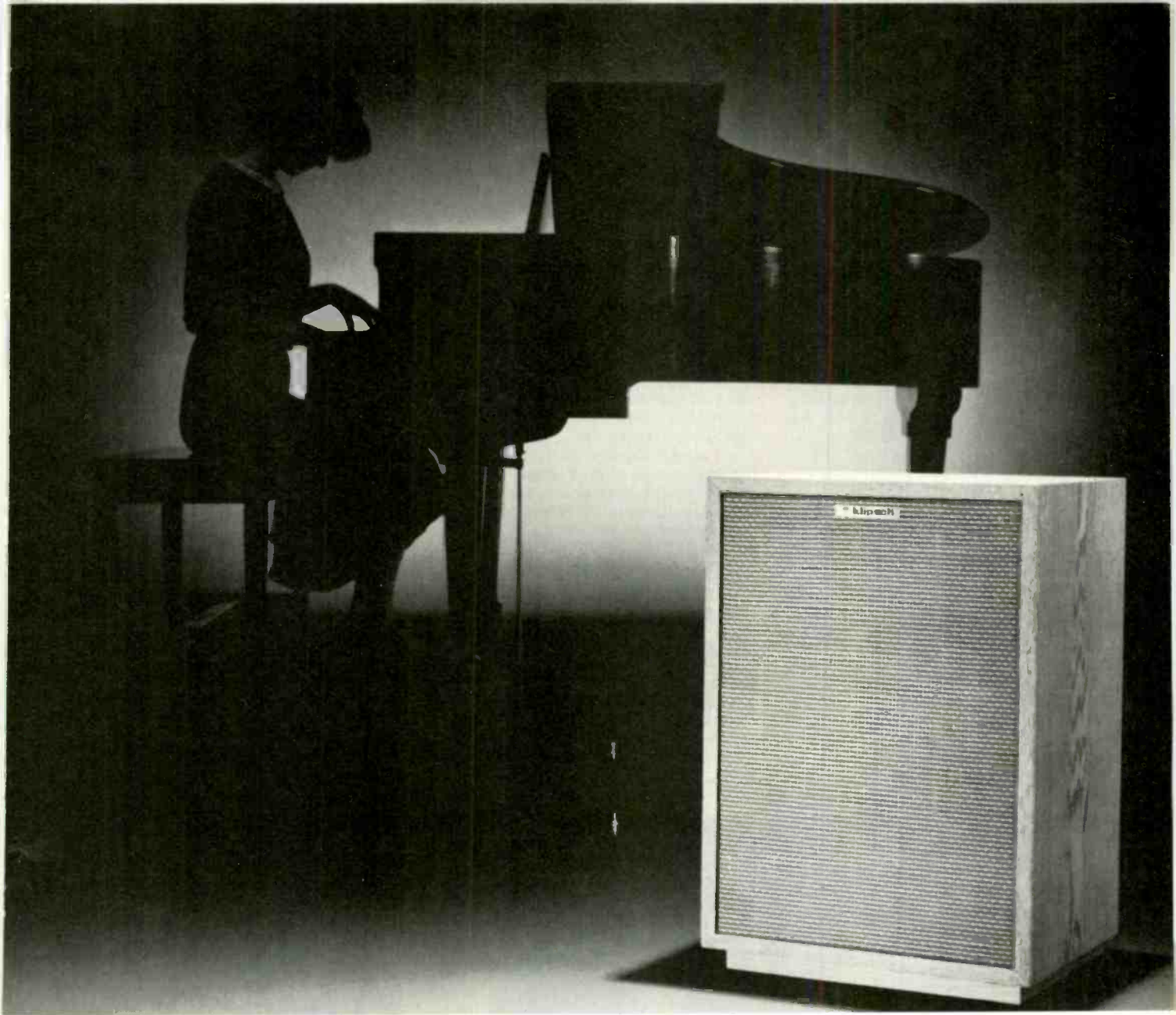
The recording itself is absolutely first-class, with excellent balance maintained between soloist and orchestra over a wide dynamic range. All told, a highly satisfying production! *D.H.*

LUTOSLAWSKI: *Paganini Variations* (see MUSSORGSKY)

MENDELSSOHN: *A Midsummer Night's Dream, Incidental Music*.
SCHUBERT: *Rosamunde, Incidental Music*. Judith Blegen (soprano); Florence Quivar (mezzo-soprano); Chicago Symphony Orchestra and Chorus, James Levine cond. DEUTSCHE GRAMMOPHON ● 415 137-1 \$10.98, © 415 137-4 \$10.98, © 415 137-2 no list price.

Performance: *Forthright*
Recording: *Close, full-bodied*

All the principal musical numbers from Mendelssohn's magical score are here, together with the three most popular items from Schubert's *Rosamunde* music. To the *Midsummer Night's Dream* overture James Levine brings both sprightliness and romantic ardor, but after that things cool down a bit. The Queen Mab Scherzo is smartly articulated, but the close-up recording kills some of the magic. Judith Blegen and Florence Quivar give us a nice "You spotted snakes," but slightly overemphatic enunciation on Quivar's part makes the result a bit less than spell-binding to my ear. Passion returns with the performance of the Intermezzo, and the quintessentially romantic music of the Nocturne fares well, with nicely controlled playing in the famous horn solo. In his effort to avoid the unavoidable, Levine takes the Wedding March at something of a quickstep tempo. The choral-orchestral finale comes off de-



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cently enough, though, again, I wished for a more magical ambience.

As for *Rosamunde*, I found Levine's treatment of the overture both hard driving and a bit on the weighty side, with aggressive trombones too much to the fore. A lighter touch would also have been welcome for the familiar entr'acte and ballet music. I have usually found Levine's recorded performances very satisfying, but I must count this program as something of a disappointment. *D.H.*

MOZART: *Divertimento in E-flat Major* (K. 563). Gidon Kremer (violin); Kim Kashkashian (viola); Yo-Yo Ma (cello). CBS ◉ IM 39561, ◉ IMT 39561, no list price.

Performance: *Brilliant*
Recording: *Excellent*

When Gidon Kremer, Kim Kashkashian, and Yo-Yo Ma join forces, they never let you forget that each is a top-ranking virtuoso in his own right. Fortunately, most of Mozart's *Divertimento in E-flat* stands up nicely to the virtuoso approach. There are moments when the music would be better served if the playing were more relaxed and not so "pushy," but the sheer energy and vigor of these young artists are contagious, and the overall effect of their reading is brilliant. *S.L.*

MOZART: *Piano Sonata in C Major* (K. 330); *Adagio in B Minor* (K. 540); *Piano Sonata in B-flat Major* (K. 333); *Eine kleine Gigue in G Major* (K. 574). Mitsuko Uchida (piano). PHILIPS ◉ 412 616-1 \$10.98, ◉ 412 616-4 \$10.98, ◉ 412 616-2 no list price.

Performance: *Excellent*
Recording: *Excellent*

This is the third of Mitsuko Uchida's Mozart recordings to reach me, and it is by far the most enjoyable. There is a sort of innocence in her approach here, in the sense of taking Mozart at face value and not introducing exaggerated dynamics or other gratuitous interpretive gestures. Mozart at face value, of course, includes a good deal of subtlety as well as a good deal of spirit. Uchida leaves nothing unaccounted for, but she seems content to let Mozart make his own points.

The two late pieces make superb foils to the expansively good-natured sonatas, which preceded them by seven to ten years. The B Minor Adagio of 1788 is one of the most sober and exalted of all Mozart's keyboard works; the *Kleine Gigue* (which Tchaikovsky orchestrated as the opening section of his *Mozartiana*) is a lighthearted tribute to Bach. Uchida's performances of the sonatas are perhaps more than matched by Andrés Schiff in his splendid series for

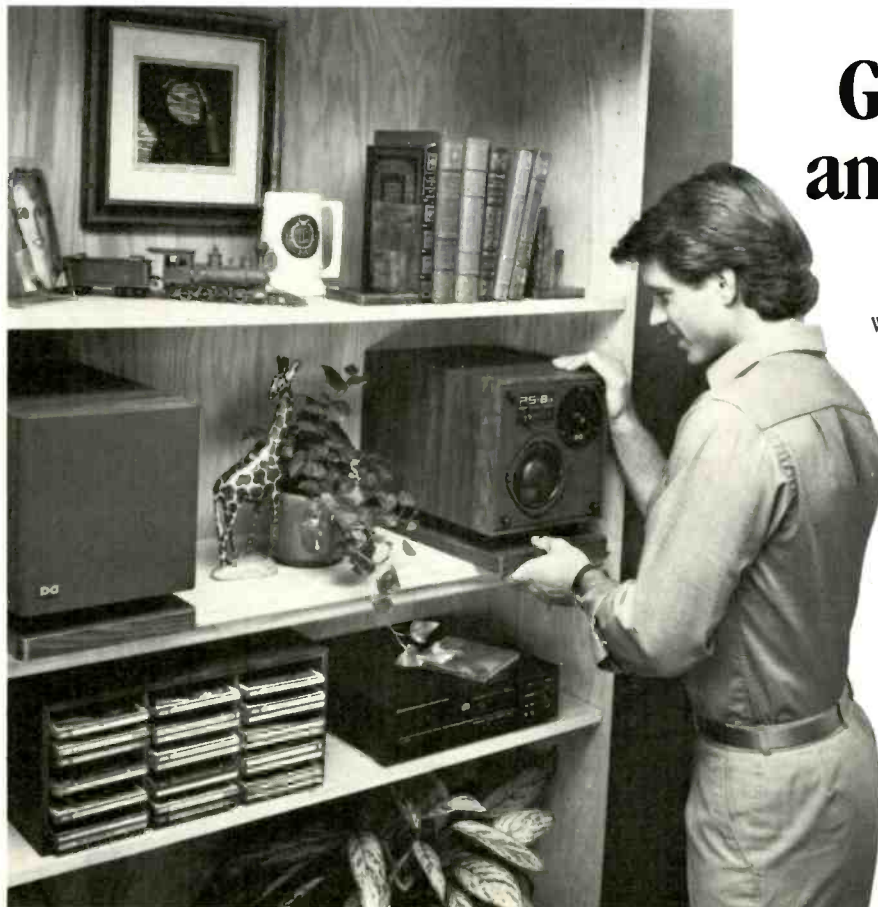
London, but it is good to have the additional pieces in such a series, and the sound quality of the new Philips issue is altogether exceptional. In this case the LP, thanks to its incredibly quiet surfaces, could easily be mistaken for the stunning CD. *R.F.*

MOZART: *Symphonies: No. 32, in G Major; No. 35, in D Major* ("Haffner"); *No. 39, in E-flat Major*. English Chamber Orchestra, Jeffrey Tate cond. ANGEL ◉ AE-34439 \$6.98, ◉ 4AE-34439 \$6.98.

MOZART: *Symphonies: No. 40, in G Minor; No. 41, in C Major* ("Jupiter"). English Chamber Orchestra, Jeffrey Tate cond. ANGEL ◉ AE-34440 \$6.98, ◉ 4AE-34440 \$6.98.

Performances: *Fabulous*
Recordings: *Splendid*

When it comes to Mozart, Jeffrey Tate is a conductor to be remembered. He fully realizes Mozart's incredibly rich instrumental palette in these readings. There is nobility and spaciousness, wit and charm, melodic simplicity and contrapuntal complexity. Every mood is given its natural expression, and the music flows cohesively from beginning to end. The English Chamber Orchestra plays magnificently, and it is nice to know that Mozart's music can sound



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just as magnificent on modern instruments as it does on early ones. These wonderful records simply prove it is good conducting that counts, not the authenticity of the instruments or performance practices. S.L.

MUSSORGSKY (arr. Haché): Pictures at an Exhibition. LUTOSLAWSKI: **Paganini Variations.** Anthony and Joseph Paratore (duo-piano). CBS M 42017, © MT 42017, no list price.

Performance: *Very good*
Recording: *Good*

Having heard any number of pianists, including the redoubtable Horowitz, struggle to realize the sonorities implicit in the larger-scaled episodes of Musorgsky's *Pictures at an Exhibition*, I have wondered why no one ever thought of rescoring the piece for two pianos. I know nothing of Reginald Haché, who is credited as arranger of the two-piano version recorded here, but to my ear he has done an effective job with a minimum of gussying-up. Pianists Anthony and Joseph Paratore have been on the international music scene for some years, and their performance is straightforward and unman-nered. They follow pretty closely the tempo sequences familiar to us from the Ravel orchestral transcription, but include all of the Promenade interludes.

Among the sections that come off particularly well in this two-piano version are the *Bydlo* (ox-cart) episode, the *Ballet of Chicks in their Shells*, *The Market Place at Limoges*, which on one piano is a terrific handful, and *The Hut on Fowls' Legs*, where the transcriber has made the most of the dialogue between the two instruments. *The Great Gate of Kiev* is presented with something of the clangorous sonority it needs in a keyboard realization, but I think it could have been heard to even greater effect if the recording had been made digitally in a fine auditorium or ballroom instead of what sounds to me like a fairly standard studio surround.

By way of encore we get Lutoslawski's highly entertaining *Paganini Variations* of 1941, a work that has become something of a fixture in the contemporary duo-piano repertoire. The execution here is brilliant! D.H.

RAVEL: Gaspard de la nuit; Pavane pour une infante défunte; Valses nobles et sentimentales. Vladimir Ashkenazy (piano). LONDON ● 410 255-1 \$10.98, © 410 255-4 \$10.98, © 410 255-2 no list price.

Performance: *Glorious*
Recording: *Excellent*

Vladimir Ashkenazy's earlier recording of *Gaspard de la nuit*, made some twen-

ty years ago, was deleted long since, and until now he had recorded nothing else by Ravel. I don't remember the earlier version very vividly; Ivo Pogorelich's is the one I've enjoyed most lately, and trying to choose between it and Ashkenazy's new one could be happily exhausting. Both performances are stunning. By way of oversimplification, I might say that Pogorelich's is more austere, Ashkenazy's more overtly dramatic. But there is drama aplenty in the shattering chill of Pogorelich's *Ondine*, the dark motionlessness he achieves in *Le Gibet*, and his meticulous shading in *Scarbo*. Ashkenazy brings a greater sense of color throughout the work and certainly as much virtuosity.

I would not like to do without either recording, and the respective couplings are not much help in making a choice. Pogorelich is dazzling in Prokofiev's Sixth Sonata, and the recorded sound is much more vivid than in his earlier recording of that work. Ashkenazy, favored with even richer sonics, is just as dazzling in a remarkably characterful performance of the *Valses nobles et sentimentales*, which must take a high place in the Ravel discography as well as in his own, and he manages to bring almost as much unforced poetry to the *Pavane*. Perhaps both discs are really indispensable, but I feel a tad more certain about the Ashkenazy. R.F.



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ROSSINI: *La donna del lago*. Katia Ricciarelli (soprano), Elena; Lucia Valentini Terrani (mezzo-soprano), Malcolm; Dalmacio Gonzales (tenor), Umberto; Dano Raffanti (tenor), Rodrigo; Samuel Ramey (bass), Douglas; others. Coro Filarmonico di Praga; Chamber Orchestra of Europe, Maurizio Pollini cond. CBS 13M 39311 three discs, © 13M 39311 three cassettes, no list price.

Performance: *Delightful*
Recording: *Excellent*

ROSSINI: *Maometto Secondo*. Samuel Ramey (bass), Maometto; June Anderson (soprano), Anna; Margarita Zimmermann (mezzo-soprano), Calbo; Ernesto Palacio (tenor), Erisso; others. Ambrosian Opera Chorus; Philharmonia Orchestra, Claudio Scimone cond. PHILIPS 412 148-1 three discs \$29.94, © 412 148-4 three cassettes \$29.94, © 412 148-2 three CD's no list price.

Performance: *Dramatic, exciting*
Recording: *Excellent*

How deprived we have been, until recently, in believing that *Il barbiere* and *La Cenerentola* were Rossini's principal operas. This misconception was somewhat dispelled some seasons ago by the Metropolitan Opera's productions of *L'Italiana in Algeri* and *The Siege of Corinth*, a watered-down version of *Maometto Secondo* arranged by Rossini for his Paris debut. Now, following the Sutherland-Horne recording of *Semiramide*, Rossini's *opera seria* are being increasingly recorded.

La donna del lago and *Maometto Secondo* were the last two operas but one that Rossini composed for Naples, at that time the most operatically sophisticated city in Italy, if not in all of Europe. Stimulated by a knowledgeable and appreciative public, Rossini experimented with orchestration, with operatic forms, and with melodic construction, and in both of these operas his originality is markedly evident. Otherwise they are quite different, *La donna* being a comedy (at least it ends happily) and *Maometto* a tragedy—indeed, a “heroic tragedy” in Dryden's sense. If both plots require some suspension of disbelief, they are far more credible, than, for example, *Il Trovatore*.

Rossini molds his materials and means of expression to the aesthetic requirements of each work. The orchestration of *La donna* is light and graceful, for the most part, that of *Maometto* more somber. The cavatinas—or entrance arias, as they were considered in Rossini's time—are used to depict character and not merely to display the voice, and both operas show Rossini as a supreme melodist, spinning out lines of ravishing beauty and sensitivity.

La donna del lago is the more accessible of the two operas, capturing the almost bucolic feeling of rural Scotland as presented in the Walter Scott poem that is the libretto's source. It is admirably performed by a strong cast on the new CBS recording. The role of Elena

lies in the very best part of Katia Ricciarelli's range, and she sings the *fioritura* stylishly and easily. Lucia Valentini Terrani, a stalwart Malcolm, makes her (his) long entrance scene memorable for both sensitivity and vocal pyrotechnics. The two tenors, Dalmacio Gonzales and Dano Raffanti, cope valiantly with the near-impossible demands of their roles, while Samuel Ramey, as Douglas, creates a sympathetic character torn between patriotic and paternal love. Ramey's musical performance, as we have come to expect from him, is outstanding, and the orchestra and chorus perform accurately and elegantly under Maurizio Pollini's responsive direction. A feeling of musical joy emanates from this recording.

The Philips *Maometto Secondo*, set against a background of the Turkish-Venetian wars, is dominated by Ramey, whose voice, the color and texture of brown velvet, responds to the coloratura demands of the protagonist's part as if they were simple scales in C. June Anderson's brilliant soprano soars easily and dramatically through Anna's exacting role. Margarita Zimmermann and Ernesto Palacio bring solid musicianship, a sense of character, and a knowledge of Rossini's style to their respective assignments as Calbo and Erisso. The orchestra and chorus perform very well indeed, and Claudio Scimone conducts with evident appreciation of this fine score, perhaps Rossini's most ambitious. R.A.

SCHUBERT: *Rosamunde, Incidental Music* (see MENDELSSOHN)

SCHUMANN: *Piano Concerto in A Minor* (see CHOPIN)

VIVALDI: *The Four Seasons*. John Holloway (violin); Taverner Players, Andrew Parrott cond. DENON © 38C37-7283 no list price.

Performance: *Fascinating*
Recording: *Very good*

This is the fifteenth recording of Vivaldi's *The Four Seasons* to be listed in the Compact Disc section of Schwann, and the fourth of those to feature “original instruments.” The Taverner Players number thirteen in all, with eleven strings and two continuo players employing theorbo, archlute, organ, and harpsichord as appropriate to the music at hand. Andrew Parrott directs from the keyboard. Tuning is to A = 415, a half-tone down from modern concert pitch.

As a sound experience, this reading of *The Four Seasons* is crystal clear and as bracingly dry as fine champagne. Every polyphonic line, every rhythmic figure is etched crisply and for the most part unerringly. Violin soloist John Holloway appears to run into intonation problems in the slow movement of *Summer* and in the opening movement of *Winter*, but this may be a misimpression from the unfamiliar sound of the old instruments with their wealth of overtones. The sheer brilliance and vi-

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A few of the features found in the HPL 540 shown here are: Dolby B and C noise reduction systems, tuner/tape switch, tape search, and the smooth convenience of full logic tape controls. The ergonomic design insures easy operation of all functions.

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tality of Holloway's playing is really impressive, particularly for the agility he displays in the first movement of *Autumn*. For pure tonal magic, listen to the "sleep" section of the following *adagio* movement, where the harmonic content produced at the lowest possible dynamic level would be the envy of any impressionist master. In terms of what emerges from the loudspeakers, this could only happen to full effect on Compact Disc. *D.H.*

Collections

BOSTON CAMERATA: *La Primavera*. Des Prés: *Benedicite omnia opera Domini Domino*. Monteverdi: *Quando l'alba in oriente*. Dowland: *Come away, come sweet love*. Senfl: *Wohl kumbt der Mai*. Marenzio: *Scaldava il sol*. Campion: *It fell on a summer's day*. Praetorius: *Courante*. Playford: *Country dances*. Gibbons: *The silver swan*. Ban-chieri: *Contrappunto bestiale*. And eleven others. Boston Camerata, Joel Cohen cond. ERATO STU 71545 \$10.98.

Performance: *Delightful*

Recording: *Good*

There's something for everybody in this Renaissance anthology of music inspired by the natural world. The album provides a fascinating survey through works that are full of musical wit and charm. The Boston Camerata singers and players are at their best under Joel Cohen's direction, and they bring it all off splendidly. *S.L.*

DOWLAND: *Songs*. *Come again: Sweet love doth now invite; Come away, come sweet love; I saw my Lady weep; Piper's Pavan; Sweet stay awhile; Weep you no more, sad fountains; In darkness let me dwell; A shepherd in a shade; What if I never speed?; The King of Denmark's Galliard; Go, crystal tears; Daphne was not so chaste; Mrs. Winter's Jump; Mrs. White's Nothing; Mrs. Vaux's Jig; The Shoemaker's Wife; A Toy; Tell me true Love; Fine knacks for ladies*. Andrew Dalton (countertenor); Yasunori Imamura (lute). ETCETERA 1013 \$11.98, © XTC 1013 \$11.98, © KTC 1013 no list price.

Performance: *Exquisite*

Recording: *Fine*

John Dowland brought the English lute song to a peak of artistic perfection, and Andrew Dalton and Yasunori Imamura bring this music to us in exquisite performances. Dalton's countertenor is a rich contralto capable of infinite coloration, and he uses it to underscore the nuances of Dowland's carefully etched melodies and to bring out the emotionally charged poetry of the texts. His diction is so remarkably clear that singing and poetic recitation become one.

Imamura, also heard in two solo groups, is an excellent lutenist, and his ability to pace Dowland's accompaniments and breathe with Dalton give an extraordinary unity to their performances. *S.L.*

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SPECIAL NOTE By Drew Kaplan

It was amazing. Last summer, we offered a portable video system complete with color camera for just \$689.

I, and actually my whole family, tested the equipment before I wrote the ad that follows. But, it was really only after I printed the catalog that I started using the system regularly.

And, as you'll see, use it I did. My older son, Chris, and I took it on a roller coaster. Wow, just turn the page (and maybe your stomach) to see the results.

You'll see the tennis and golf swings of two DAK pros. (I still don't have time to play myself.) What's really interesting, is what Chris said when I asked him (he takes tennis lessons), what he thought of my neat tennis pictures.

He said, "The guy's feet shouldn't have left the ground and he shouldn't crouch so much." I wanted him to critique my neat pictures, not the swing. But, it does prove the value of using video to analyze any games you play.

And the best thing about this system, besides the new \$599 price, is that it is so incredibly easy to use. Just turn it on and record. There are no fancy complicated controls.

There's virtually nothing to learn. You'll be recording 15 minutes from the time that you open the box.

Below you'll find an expanded version of my original story. I've added pictures as well as lots of new uses, some suggested by DAK customers.

You can be sure that I would never have thought that plastic surgeons would use a video system. Or, that bull riders at a rodeo would want to record their feats.

By the way, I unfortunately can't reproduce moving video pictures in this catalog, so I had to use conventional cameras along side the video camera

for the pictures in this ad.

The video is much more exciting, but you'll have to see that for yourself. Here's my expanded ad.

Daddy's Pride And Joy Expanded

By Drew Kaplan

"Where's the Unicorn?", was the title of my son's speech. And, I was going to miss it.

I had also missed the trip to Knotts Berry Farm where he had won the Unicorn. He was especially proud because neither his older brother nor any of the adults had been able to win anything.

POSSIBLE DIVORCE?

Everyone in the family thought I should skip the meeting, and they were probably right. But I had an idea.

I called Emerson and asked to borrow one of their portable video machines with a camera that would 1) be light enough for my wife to easily carry, and 2) wouldn't require any training.



The next day we received the system you see above. I didn't plan to sell it (I told Emerson that at \$999 it was too expensive), but I really needed it for that day.

Well, not only did this system save my marriage, but we've had a heck of a lot of

fun. Yes, I've seen the Unicorn Speech many times, as have all the grandparents. But that was just the beginning.

The very first night we unpacked the recorder, the kids turned into 'hams'. And by the way, the speech was probably much better because we used the video recorder over and over again to practice.

So, whether you're a movie star, a model, an extra or simply giving a speech at school or at work, you can practice and evaluate your presentation as often as you like.

If you're like me, speaking in public is awesome. I want to know what I look like, what I sound like and how I make my points before I go live.

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Inside and out, (yes it came right out of the box with everything, including an AC power supply and a rechargeable battery) we really put this thing to use.

Just plug the camera into the recorder. Then insert the rechargeable battery or the AC power supply. Finally insert a standard VHS cassette and away you go.

Cables are included to connect this recorder to any TV inputs from 75 ohm cable to 300 ohm flat wire to direct video for a monitor or another recorder.



Next page please. . .

Daddy's Pride And Joy Continued. . . Everything you need is included.

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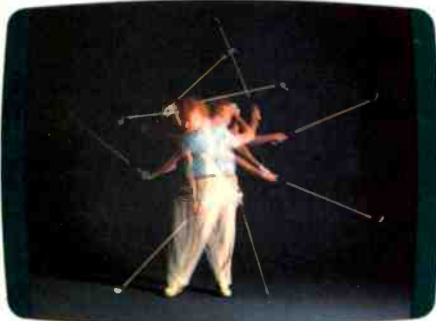
My older son is taking tennis lessons. Making recordings of your swing out on the court is an ideal way to improve. He can really study his wrist and arm action.

Here are some pictures of our resident DAK tennis pro doing his thing for my cameras. Do you think his swing is good? (See previous page.) Of course, you can freeze the action at any point to really study your swing.



It's also terrific out on the golf course for improving your golf swing. In fact, it's such a powerful method of game improvement that they sell video cassettes showing you how to improve your game.

Here's our resident DAK golf pro demonstrating his skill for my cameras. On the video tape you could freeze the action frame by frame. (He asked me to tell you that he only looks fat in the picture because of the effect of the number of exposures I needed to show his full swing.)



With this system you can really refine your game. I can't personally attest to improving your tennis or golf games, because I'm too busy writing catalogs to take time off to play.

And anyway, when I was growing up, playing ping pong seemed to be an extravagant sport to me.

GOOD FOR WORK TOO

It's easy to see how many pleasurable uses it has. But, wait till you see what it can do for you at work. Here are just a few of the many types of work that can be enhanced by using this video system.

For Communication. I've already mentioned public speaking, but look at this. If you have salesmen in the field, wouldn't it be great to be able to send out a personal video description.

It can be of your newest products, automated equipment, or a message from the president about what the sales force should know about the company's future plans. It's great for morale.

With over 30% of households in the U.S. already having video recorders, you probably won't even have to supply a recorder. And, think how powerful the presentations of your sales force will be when they can show live videos of your products **IN ACTION** instead of boring price list pictures.

For Real Estate. It's already happening. Just imagine walking in to a prospective buyer's home with tours of 5 or 6 homes ready to show on their TV. All you have to do is walk through a home to show the view, amenities, and give a true feeling of the home.

You'll save hours. Your clients will appreciate the time you save them and you'll only take them to see the homes they'll be likely to buy.

Some agencies even have the 'sign planters' tape the houses so all the brokers in the office can get an easy look.

And, no matter what, you should have a stock tape showing the schools, the churches, the stores and any other assets of the community that are likely to help with the sale.

For The Factory. Why teach each new employee how to run the same machine. Sit them down in front of a TV and let the video tape do the work. You'll always know for sure exactly what the new employee has been told and they can watch the tape several times if they wish.



When you do bring them out 'on the line', you'll find the fine tuning is really easy and you'll have saved hours of repetitive teaching. Making the tapes is easy and it can really pay off.

There's Lots More. The power of a plant tour or equipment demonstration on tape shown to a prospective out of town customer is awesome. It can make the ultimate difference.

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With video cassettes costing as little as \$5, why not send one to an old friend who lives across the country. Wow, what a great way to revive old friendships.

As many as 30% of all households are estimated to have VHS recorders. So, there's a good chance your old friends already have recorders.

My wife is planning to send out about 6 copies of a tape about us to her old 'best' friends in Akron, Ohio and Denver, Colorado and Phoenix, Arizona.



Here's the view from a twin engine island hopper we took to visit DAK's retired controller while we were in Hawaii. Unfortunately I'm not a private pilot, but just think of all the great moments you've had in the air that you can show on the ground.



If you look at the picture below, you'll see my son heading for a soccer ball. If you're into comedy, you'd have to see the video to see him not only miss the ball, but end up flat on the ground. (He was fine as usual.)



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A FRANK COMPARISON OF CAMCORDERS AND SEPARATES

There are two types of video systems on the market, and a dizzying array of formats. Let's look at formats first.

Camcorders use 8 millimeter cassettes, mini VHS, Beta or full size VHS. Obviously, standard VHS cassettes with their 100% compatibility with all VHS home units and their 6 hour recording capability are our choice.

The problem is that while a few of the smaller format cameras with 20 minute recording capability can weigh somewhat less than 5 pounds, VHS camcorders can weigh over 8 pounds.

Emerson's system has a camera that only weighs 1.54 pounds. Holding up 8 pounds to your eye can be a real pain.



Of course, when you add Emerson's recorder at 10.6 pounds, it weighs more overall. But, the 10.6 pound recorder is supported by a comfortable shoulder strap. So, you only hold the 1.54 pound camera up to your eye.

And, with separates, you can take the recorder without the camera for dubbing or playing tapes.

It's impossible to say which format will eventually win the contest. But, whether it's separates like the Emerson, or full size VHS camcorders, your tapes will be 100% compatible.

AT HOME TOO

You'll get a TV tuner that turns this recorder into a standard home video recorder. You can record off the air VHF 2-13 and UHF 14-83.

The recorder has both VHF channel 3 and 4 output capability, so you can connect the recorder to any TV.

It also has 'video' inputs and outputs, so you can connect it directly to a TV monitor or to any other video recorder.

Just use normal 'audio' type RCA patch cords for really clean copies of cassettes. So, it's a portable dubbing machine.

There's an adjustable shoulder strap. And, it's backed by a limited warranty.

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If you're not 100% satisfied, or even if you don't like to watch your family on TV, simply return the system in its original box within 30 days for a courteous refund.

To order your Emerson Video System (Emerson's camera is by Konica), risk free with your credit card, call toll free, or send your check for ~~only \$650~~ plus \$11 P&H. Order No. 4313. CA res add tax.

You've got to try this! Take the camera in the car and drive around your block or to your office with someone holding the camera out of the window. Wait till you see the results. It's like a roller coaster.

In fact, we rode a roller coaster 4 times to get the pictures on the previous page. It's really hard holding on for your life while you try to shoot pictures. But, the tape sure is a blast to watch.

UNNECESSARY OPTIONS

Basically the system comes with everything you need. But, here are a few extras.

You can order extra rechargeable batteries. Each charge (2½ to 4 hours) gives you about an hour of recording. So, if you want to record more than an hour without recharging, an extra battery is just \$24.95 (\$2 F&H) Order No. 4363.

You can operate this system from your car, boat or plane's 12V cigarette lighter. The cable is just \$9.95 (\$1 P&H) Order No. 4364.

What if you're alone and you want to record yourself. We have a tripod for the camera. (Yes, there's a standard tripod mount on the camera.) You absolutely do not need this to hold the camera steady when you're recording on the move. But, if you're working alone, it's just \$39 (\$4 P&H). Order No. 4365.

Finally, if you're out in the bushes where you don't have access to a TV and you'd like to show off your tapes, we've got an AC/DC black and white (D cells not included) 5" TV for just \$69 (\$5 P&H) Order No. 4366.

Or, you can go in style with an AC/DC 5" color set (D cells not included) for just \$199 (\$7 P&H). Order No. 4367.

Of course, any TV anywhere will work perfectly with this system, so chances are you don't need any of the optional accessories. This is not just a 'starter system'. This is a complete video system just the way it comes out of the box.

PRICE SLASHED

List price was \$999

DAK sold it for \$689

NOW JUST \$599

Use Order No. 4313 plus (\$11 P&H)



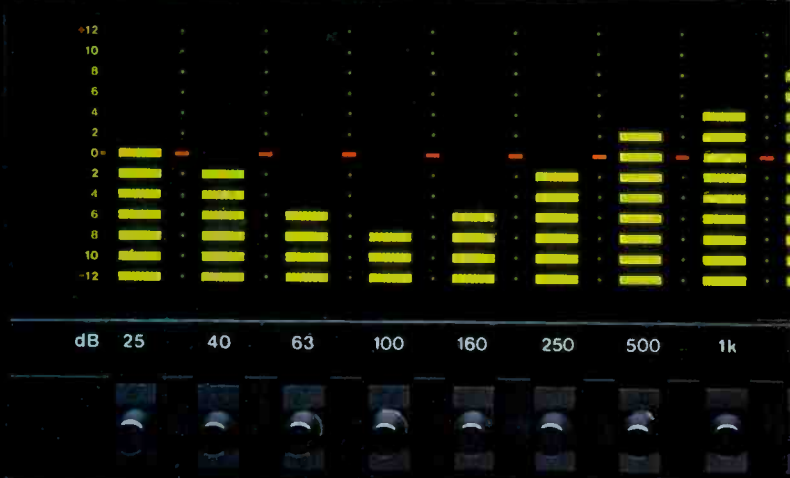
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The Ultimate

COMPUTER MEMORY FREQUENCY EQUALIZER / REAL TIME SPECTRUM ANALYZER



POWER

VOLUME

dB 25 40 63 100 160 250 500 1k

Journey into Drew's ultimate sonic fantasy world. This 12 band per channel, all electronic BSR Equalizer/Spectrum Analyzer, will literally explode your concept of the dramatic sound capabilities of your own stereo. Add an omnipotent remote control, 4 equalization memories, 2-way dubbing and much more, and you'll have The Ultimate Sound Detonator.

By Drew Kaplan

It was a fantasy come true. 3 BSR division presidents plus senior engineers from Japan and America sat down with me and brainstormed.

The subject was 'the ultimate equalizer'. BSR brought their \$1200 dbx 1020 equalizer (dbx is another BSR division), and I brought my wish list of features.

BSR brought 5hz to 100,000hz \pm 1db quality requirements, and I brought a need to use their existing tooling so that I could maintain DAK's close-out pricing.

Above, is pictured the culmination of over a year of work. It's an addition to your current stereo system that I personally guarantee will infuse your music with such kaleidoscopic vibrance that it will knock your socks off.

And, you're going to have my personal wish list's control of your sound, both at the equalizer and by using its remote, that has never been matched. BSR designed the sound. I, as the 'ultimate audio consumer', chose the features.

FOREPLAY

12 bands of control per channel (not the usual 10), a pink noise generator and a spectrum analyzer would make this the top of the line (up till now) system.

Add a massive fluorescent display. A touch of a button changes the display from showing you the spectrum analyzer (above), to showing you the 'electronic' slider settings of the equalizer (below).

For example, you can have one memory set for classical music and one for jazz. And look at this, for making cassettes for your car, you can store a curve with the highs accented. Or, for making cassettes for your personal stereo, store a curve with the bass augmented.

From the remote, you can detonate each of the 12 bands separately or in groups on one channel or both. You can switch between the equalizer and the analyzer. And, you can access any of the 4 memories and you can control system volume.

NOW FOR THE ACTION, OR YOUR STEREO'S HIDDEN SOUNDS

Forget conventional sliders. BSR's all electronic equalizer lets you boost or cut each channel with the touch of an electronic button. You can activate the left, right or both channels simultaneously.

An equalizer isn't some magical device that manufactures sounds that don't exist. Most of the frequencies that will make your music sound really vibrantly alive are already in the recording.

The problem is that very high and very low frequencies are generally recorded or reproduced with less volume than the mid-range. And frankly, that's the difference between Low Fi and Hi Fi.

Just a 5db roll-off at the high end, up around 14,000hz, can just decimate the harmonics that give you the open feeling you'd experience at a live concert. A similar roll-off at 60hz causes the fun-

or instruments. Just wait till you hear string basses emerge in your music.

There's such life that you'll feel as if you can reach out and pluck a string. You'll add a warmth and fullness to your music at low levels that becomes foundation shaking thunder at high levels.

Just boost the highs at 4,000hz, 8,000hz, and 16,000hz to add lifelike openness to your music. Wait till you hear the crash of a cymbal or the gentle sound of brushes on a snare drum. Wow, it's alive.

And, unlike using bass and treble controls, you can make massive improvements in the very low and very high frequencies without disturbing your favorite singers voice in the mid-range.

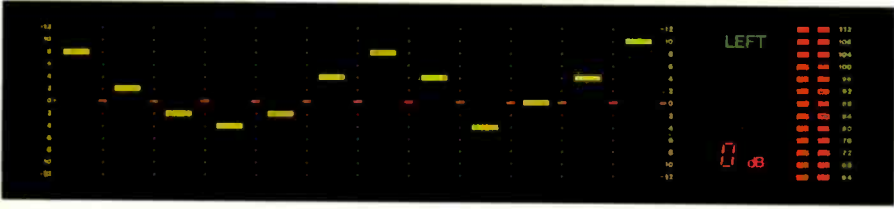
If you have carpets and drapes, you'll need to add more high end. If you have all tile or hard floors, you'll want more bass. No recording engineer or equipment manufacturer can even begin to control your listening environment.

Even if your room is acoustically perfect, if you're like me, you'll want to make your music throb with life. And, throb it will with the power of this device.

You can boost or cut any part of the frequency spectrum a full \pm 12db at the equalizer or from the remote. And, a beep confirms each action. Just add 2 AA batteries to protect the memory.

TAPE DECK HEAVEN PLUS

You can push a button and transfer all the equalization over to the inputs of two tape decks. This is an especially great feature when you play your cassettes on bass-starved portables or high-end starved car stereos.



Then, add instant memory buttons that let you store 4 complete curves for all 24 bands (12 per channel).

damental bass notes to just fade away. You can boost the low-bass at 25hz, 40hz, and 63hz to animate specific areas

You can record on two decks at once or dub from one to the other in either direction. And look at this. There's an

Sound Detonator

model 4000XR



external processor loop which lets you switch in or out any other enhancer.

SIMPLY PLUG IT IN

Now your one tape monitor circuit lets you plug in two tape decks and an enhancing device. Just plug the equalizer into the tape 'in' and 'out' jacks on your receiver or preamp.

As you listen to your records, FM or an 'Aux', any time you push the tape monitor switch on your receiver, you'll hear your music jump to life.

THE SUBSONIC FILTER

Much of the power drawn from your amplifier is used to drive your woofers. A subsonic filter removes a lot of non-musical material you can't hear below 15hz. So, it relieves your amplifier of a lot of work. So, you can crank up the bass you can hear while not overdriving your amplifier with the subsonic sounds.

THE SPECTRUM ANALYZER

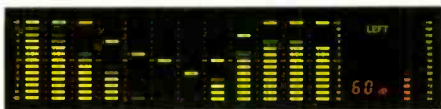
Now you can scientifically analyze your stereo listening room and test your equipment by using BSR's Real Time Frequency Spectrum Analyzer.



At the end of an 18 foot cord is the ear of the system. Just clip the mike wherever you sit and test your room.

Plus you'll see your music not as a single level on a VU meter, but as a kaleidoscopic parade of 12 individual VU meters. Each is tuned to a specific octave of the sound spectrum. Plus there are left and right VU meters.

The effect is awesome. You can visually isolate a string bass or a cymbal, and actually see each individual instrument almost as a wave moving across the individual fluorescent elements.



And, for setting levels or evaluating a recording, one touch of the Peak Hold Button will freeze each top element.

The analyzer speaks with a voice of pure calibrated Pink Noise. Pink Noise is the standard composite 'sound' of all frequencies used for testing in labs.

Just use the matched calibrated electret condenser microphone (included) to evaluate and let you improve the total sound of your system.

display to enter or recall memory curves.

FINAL FACTS AND MORE

Each of the 12 frequency bands can be boosted or cut by 12db. (That's a 24db range.) Both the analyzer and equalizer can look at the Left Channel, the Right Channel or both concurrently.

BSR was able to use its existing tooling to a great extent, so the price worked out to be much lower than their original projections, which would have made this equalizer available only to the very rich.

It is 17 1/2" X 3 1/2" X 1 1/2". It's backed by BSR's standard limited warranty.

INFUSE YOUR STEREO'S SOUND RISK FREE

This is the Ultimate Equalizer because it is the finest I have ever seen. And besides, I've run out of things that can be added. It will quite simply startle you with music that's so vibrant it will seem to be three dimensional.

If you're not 100% thrilled, simply return it to DAK within 30 days in its original box for a courteous refund. But, I'd sure appreciate a personal letter telling me why you aren't thrilled. I've never had my hands on a piece of equipment that felt better, added more to my stereo system, or was as much fun to use.

To order your BSR EQ4000 Ultimate Sound Detonator 12 Band Graphic Equalizer with Real Time Spectrum Analyzer and Calibrated Mike, with Two Way Tape Dubbing, External Processor Loop and Subsonic Filter risk free with your credit card, call toll free, or send your check, and look at this, for just \$299 (\$9 P&H). Order No. 4315. CA res add tax.

Wait till you hear and see and feel all the marvelous things this Detonator can do to bring thrilling music into your home.



THE REMOTE

Look carefully at the picture of the remote. You'll find it does everything from adjust the sensitivity of the analyzer



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BSR's Endangered Colossus

Prepare for bone jarring bass and dramatically clear highs from these newly developed 15" 3-way 5 speaker systems that nearly missed their chance to charm an audiophile's ear. BSR moved its dbx and ADC divisions into one facility and these speakers almost became orphans. So now, they're yours at a close-out price.

By Drew Kaplan

It's a shame. But, it's also a great opportunity to get a pair of 15" audiophile loudspeakers with the newest in stereo imaging at a market-breaking price.

Imagine a precisely matched mirror image pair of top-of-the-line BSR speakers that can effortlessly recreate the cataclysmic impact of a full orchestral crescendo at full volume and yet offer flawlessly subtle sound detail to 21,500hz.

You'll thrill to thunderous bass all the way down to 26hz. Incredibly rich, full, vibrant sound at low volume will explode with life as you increase the volume.

But before we examine the front speaker complement, the twin overlapping crossovers and the top mounted sonic placement and ambiance speakers, let's see why they were almost orphaned.

You see, BSR, the half billion dollar electronics giant, is the parent company of two of the best names in up-scale audio, dbx and ADC.

Last year dbx developed a new multi-thousand dollar speaker system called the Soundfield One which lets you sit virtually anywhere in your room and have full stereo imaging and terrific sound.

BSR decided to consolidate ADC and dbx into one building (still 2 companies) and put all its speaker efforts into dbx.

POOR JACK

Well, while dbx's engineers were off designing their multi-thousand dollar masterpieces, BSR's Senior Acoustical Engineer (he had been Fisher's Chief Engineer for 10 years during its top end component stereo days), was designing BSR's radically new speaker line.

The revolutionary top of the line 15" stereo imaging pair pictured above will let you enjoy superb stereo imaging without sitting directly in front of your speakers.

But unfortunately, in the consolidation move, BSR's speakers went by the wayside, and so did Jack.

Enter DAK. After a few fearful negotiations and considering the engineering costs BSR had already expended, they agreed to make the speakers just for DAK.

Because there's virtually no BSR overhead left on these speakers, and the R&D was all but complete, we've gotten these speakers for virtually the component costs plus a little BSR labor.

And don't worry about Jack. BSR had him finish the engineering (they really are great people) and they'll pay him a royalty on each speaker we sell. Besides, by the time you read this, Jack is sure to be snapped up as the Chief Engineer at another esoteric audio company.

WHAT'S STEREO IMAGING?

Stereo imagery is the logical separation and interaction between channels. It's the successful creation of a panoramic wall or stage of music rather than the confined, easily located 2 speaker sound. **IT'S WHAT'S INSIDE THAT COUNTS**

Imagine the full thunder of a kettle drum, or the pluck of a string bass being explosively recreated in your living room. BSR's 15" sub-bass acoustic suspension driver will revolutionize your concept of low clean bass.



Its magnetic structure weighs a thundering 48 ounces. But that's not all. The magnetic field is developed by the rare earth metal Strontium for state of the art massive but flawlessly controlled bass.

A 38mm voice coil with a 200° centigrade temperature capacity, will handle the most demanding digital or analog recordings. And, a new super rigid cabinet design virtually eliminates coloration due to uncontrolled cabinet resonance.

At low volume, the bass will fill in and envelope you. At high volume, your room, your walls and your neighbors will shake. This is definitely not a speaker system for apartment dwellers.



MATCHED PAIRS

The mid-range and high end of BSR's speakers are truly unique. Front mounted 8" polypropylene mid-range drivers provide rich sound while top mounted 5" polypropylene mid-range drivers provide an open, lifelike ambiance.

Front mounted exponential horn tweeters provide awesome brilliance to 21,500

hz, while top mounted tweeters enhance separation because they are mounted to the outside edge of each speaker.

So, this system has a specific left and a specific right speaker. You'll find wide, but interactive separation that will vastly widen your ideal listening area.

The imagery will give the illusion of musicians actually playing in front of you. Your music will take on a three dimensional quality. You'll enjoy superb stereo imagery regardless of each speaker's specific placement in your room.

MORE SPECIFICS

The exponential horn tweeters, both in front and on the top of these systems, employ 25mm rigid phenol diaphragms for stability and accurate response.

Polyamid-imid binders and ferro-fluid coolant allow for a 300% increase in heat dissipation so you can drive the voice coils up to 200° centigrade.

Now, the mid-range. Both the 8" front firing and the 5" top firing polypropylene drivers reproduce the mid-range frequencies like no ordinary speakers.

It's amazing that so many speaker manufacturers simply slap in 5" paper mid-ranges to reproduce what's really the major portion of the sound spectrum.

BSR's 8" and 5" polypropylene mid-ranges are rigid, exacting drivers that deliver incredibly pure uncolored sound.

They have matched 25mm voice coils, also protected by ferro-fluid and polyamid-imid to 200° centigrade. They are driven by powerful barium ferrite magnetic fields.

NOT QUITE FINISHED YET

To prevent phase shift and cancellation, two totally separate crossover networks are employed in these speakers.

Next page please. . .

... BSR's Colossus Continued

All frequencies below 800 hz are directed to the 15" woofer. The front system routes frequencies above 800hz to the 8" mid-range to take full advantage of its superb reproduction capabilities. Frequencies above 3400hz are routed to the horn tweeter.

The top mounted system routes only frequencies above 1200hz to the 5" polypropylene ambient mid-range driver, and frequencies above 3400hz are routed to the top sonic placement tweeter.

There are level controls for both the top and front mounted speakers so that you can voice the speakers to match your musical taste and environment.

Note: Only the top tweeters are mounted at the the edges. The front mounted tweeters are conventionally mounted

for acoustical symmetry.

Each speaker is fuse protected for up to 200 watts peak, 150 watts continuous power. You can operate these super efficient speakers with as little as 20 watts.

AND OH WHAT A PRETTY FACE

The speaker systems are 30" tall, 19 1/4" wide and 10 1/2" deep. Their lovely oak wood-grain appearance is enhanced by the dark removable grill cloths that beautifully contrast with the rich wood-grain tones. They're a statement of audio elegance when placed in any room. They're backed by BSR's 2 year limited warranty. **A COLOSSAL DREAM COMES TRUE**

RISK FREE

You'll hear depth of sound at low levels that was previously unobtainable. And yes, when you crank up the volume, your music will explode with realism and drama.

Try these speakers in your own system. Then compare them at any Hi-Fi Store with any pair of speakers up to \$1000. If they don't beat all the competition hands down, simply return them to DAK in their original boxes within 30 days for a courteous refund.

To order your matched pair of BSR top-of-the-line 15" 3-way 5 speaker systems with unique stereo imaging risk free with your credit card, call toll free or send your check for DAK's market-breaking price of just \$298 for the **MATCHED PAIR** plus \$22 for Postage and Handling. Order No. 4352. CA res add tax.

It's a dream system for an audiophile. Sonically pure, thunderously powerful, these BSR speakers will make your future listening years an on-going fabulous, if not earthshaking experience.



Sane Colossuses

So, your spouse or neighbors aren't into thunder and paint peeling audio. Don't worry, BSR has developed two smaller but still mighty versions of the colossus that use the same basic components, at incredible prices.

Don't despair. You won't be relegated to 'little sound' by these more sane versions of the Colossus. After all, a 15" 3-way system is usually a distant dream of only the most ardent audiophile.

10" 3-WAY SANE COLOSSUS

You will experience the same dramatic highs to 21,500hz produced by the identical exponential horn tweeters with the same rigid phenol diaphragms. There's even a variable brightness control.

And, don't look for any cheap paper mid-range speakers. You'll thrill to rich, full, incredibly pure music from a 5" rigid polypropylene mid-range driver.

The 10" woofers utilize a massive Strontium magnetic structure and can reproduce dramatically clean, massive bass down to 32hz. Unless you actually set these speakers next to the Colossus, you'd think the bass is incomparable.

The crossover points are at 1200hz and 3400hz. The speakers are rated for 90 watts peak and 45 watts continuous power and require at least 15 watts.

If you're a normal audio person, you'll be thrilled with these as main speaker systems for your stereo. But, if you're a slightly crazy DAK-type audiophile, the big Colossus Systems add a thrill to your music that goes far beyond printed specs.

These speakers are 23 3/4" tall, 13 3/4" wide, and 8 3/4" deep. Their rich oak wood-grain appearance which surrounds the contrasting dark grill cloth, will be an elegant addition to any room.

8" BOOKSHELF COLOSSUS

Where space is a consideration, your music need not suffer. BSR's newest 2-way 8" systems provide an astounding level of musical fullness.

BSR's exponential horn tweeter produces superb highs to 21,500hz. The 8" woofer/mid-range produces bass down to a very respectable 38hz and powerfully clean mid-range up to 2500hz.

On the floor or in a bookcase, these speakers will give you years of full rich beautiful sound. They are just 19 3/4" tall, 11 3/4" wide and 8 3/4" deep. Their rich oak wood-grain appearance which surrounds the contrasting grill will be a beautiful addition to any room.

All BSR speaker systems are fuse protected and backed by BSR's standard 2 year limited warranty.

TRY RICH DRAMATIC SOUND RISK FREE

These smaller versions of the Colossus may have a hard time competing with the awe inspiring sonic violence of their bigger brother. But, compared with tra-

ditional speakers, you'll find they've gained greatly by their genetic origin.

If you're not 100% satisfied, simply return them to DAK within 30 days in their original boxes for a refund.

To order the 10" 3-way Sane Colossus with its horn tweeter, polypropylene mid-range and 10" Strontium woofer risk free with your credit card, call toll free, or send your check for DAK's breakthrough price of just \$69 each plus \$9 P&H each. (2 required for stereo). Order No. 4348.

To order the 8" 2-way Bookshelf Colossus with its exponential horn tweeter and 8" Strontium woofer/mid-range risk free with your credit card, call toll free, or send your check for DAK's breakthrough price of just \$44 each plus \$6.50 P&H each. (2 required for stereo). Or. No. 4347.

These speakers have gained a great deal from their big brothers. They'll bring you years of superb musical sound and add truly elegant visual appeal to any room.



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Gary's Killer HiFi



When the price of Gary's Revenge was beaten, Gary came back fighting with a real market breaker. It's a VHS video recorder with 20-20,000hz VHS HiFi Stereo, a built-in Stereo TV tuner and more, for just \$399. Wow!

By Drew Kaplan

It's not bait and switch. After reading Gary's Revenge, you probably expect me to say that this top of the line VHS HiFi recorder is 100 times better, and the extra dollars would be well invested.

Well, it's not. Both machines are superbly built in Japan. Both are cable compatible. And, both have infrared remote control. But, if you're into perfection in sound as well as superb video pictures, then read on.

But first, a word about Gary. He was so upset about being stabbed on Gary's Revenge's price, that not only did he get us a better price on that recorder, but he said, "I'll more than make up the price on the VHS Stereo HiFi Recorder".

And, if you have the slightest doubts about Gary really existing, watch my next catalog, because I've agreed to use him in one of my pictures as a thank you for his going to bat for DAK.

VIDEO IN YOUR STEREO SYSTEM AND STEREO TV TOO

VHS Stereo HiFi gives you an incredible 20hz to 20,000hz frequency response with an 80db dynamic range.

You'll experience the full sonic drama of movies that you rent, and add a superb audio tape deck to your stereo system.

And, not only can you turn any TV into a cable compatible TV by using the all electronic tuner with wireless remote in this recorder, you can receive the new stereo TV broadcasts automatically.

And frankly, since most of us keep our color TVs for 5 to 10 years, here's a great chance to get stereo TV without replacing your perfectly good set.

VHS HiFi uses a second set of spinning heads to record sound along with the video on the tape at speeds in excess of 200 inches per second. So, the sound quality is to say the least astounding.

Of course, there's a conventional stationary audio head, so this recorder is compatible with all standard tapes, but wait till you hear the sound. **And, wait till you use this recorder for recording music in your stereo system.**

Just imagine, for only \$150 more than Gary's Revenge, you can add an audio deck to your stereo system that will beat any thousand dollar home cassette deck.

And, look at this. With VHS tapes sell-

ing for about \$5, you can record up to 6 hours of this incredible sound on one cassette **with or without a picture.**

THE BAD PART

Connecting this video recorder to your TV is easy as duck soup. Just unscrew your cable from your TV (round or flat) and connect it to the recorder. Then connect the included cable between the recorder and your TV. Then just record.

To utilize the VHS HiFi and Stereo TV tuning, you must also connect this recorder to your stereo system. Just connect the standard stereo patch cords included, and you'll have fabulous sound from movies and simply the best cassette deck for your audio system.

So, the bad part is that if your TV and stereo aren't together, this incredible machine isn't for you. Of course, it always sends conventional TV sound to your TV.

TOP OF THE LINE VIDEO TOO

Start with all the fine quality features you'll find in Gary's Revenge. You'll have 4 event 2 week programming, controlled by a super easy to use clock/timer.

You'll record shows you miss when you're out or asleep, and shows that you want your children to see at a more appropriate time. I record cable movies to watch when I have time.

And look at this. It can receive up to 139 electronically synthesized cable compatible channels. VHF 2-13, UHF 14-83, and cable 14-65 and Cable Sub Band 95-97. It's more channels than I've seen on any current cable, and every one is ready for stereo.

You can set any 16 preset channels. Just push the corresponding one touch button on the remote and you'll have instant random access from the remote.

And, speaking of the remote, you'll even be able to control still frame, slow motion and high speed forward and reverse visual search. So, you can play the same scene over and over again.

And, there's a one button record timer which lets you record from 30 minutes up to 2 hours without programming.

Much more. The deck features motorized front loading. There's a tape counter, a picture sharpness control, and both high and low speed recording.

TOUGH CHOICE

Both recorders are reliable long term

investments. If \$150 sounds like a good investment for dramatically alive sound from movies and the most incredible recorder you can add to your stereo system, then Gary's Killer HiFi is for you.

It's made by Emerson. And, it's backed by their standard limited warranty.



TRY GARY'S KILLER HiFi RISK FREE

Wait till you experience the freedom of watching any program **when you want.** Wait till you see how easy it is. And, wait till you hear the sound.

If you're not 100% satisfied, simply return it in its original box within 30 days for a courteous refund.

To order Emerson's Gary's Killer HiFi VHS Stereo HiFi Video Cassette Recorder for your TV and your Stereo System risk free with your credit card, call toll free, or send your check for Gary's Killer Price of just \$399 plus \$11 P&H. Order No. 4360. CA res add tax.

Now you can watch last night's midnight show at dinner, or tonight's dinner show at midnight. And, wait till you see the quality of the picture and thrill to the drama of the Stereo VHS HiFi Sound.



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Discs and tapes reviewed by
Chris Albertson
Phyl Garland
Alanna Nash
Mark Peel
Peter Reilly
Steve Simels

THE BLUE NILE: *A Walk Across the Rooftops*. The Blue Nile (vocals and instrumentals); instrumental accompaniment. *A Walk Across the Rooftops*; *Tinseltown in the Rain*; *From Rags to Riches*; *Stay*; and three others. A&M SP6-5087 \$6.98, © SP6-5087 \$6.98.

Performance: *Unconventional*
 Recording: *Good*

You normally don't expect music as nonconformist or sophisticated as this from a debut album—especially the debut of a band made up of a sound engineer, a journalist, and a public-relations man. The members of the Blue Nile quit their Glasgow day jobs to make this record, and you should be glad they did. "A Walk Across the Rooftops" is unlike anything you're likely to have heard in pop recently. For one thing, there are enormous stretches where very little happens. Perhaps it's lack of training, but the Blue Nile uses musical time and space as a substitute for technique the way Miles Davis did. There are just enough notes to carry the thought, and not a note more. No percolating drum machines or synth dance riffs here. This is music that unfolds slowly and dreamily.

Vocalist Paul Buchanan has an untoured, unaffected, direct vocal style—not much range or power, but it's the voice of someone you can easily imagine wandering the wet streets for hours lost in thought.

The rest of the music is a delicate accretion of rattling, echoing, percussive sounds with occasional synth effects, and now and then acoustic guitar or strings. It's been described as "Tom Waits meets Thomas Dolby," and the comparison is apt. Mix the modern angst of *Airwaves* with the jazzy, street-life desolation of *Heart of Saturday Night*, and you'll begin to get an idea of the Blue Nile's unique sound. *M.P.*

MARSHALL CRENSHAW: *Down-town* (see Best of the Month, page 85)

EXPLANATION OF SYMBOLS:

- = DIGITAL-MASTER ANALOG LP
- © = STEREO CASSETTE
- Ⓢ = DIGITAL COMPACT DISC
- Ⓜ = MONOPHONIC RECORDING



NEIL YOUNG'S COUNTRY FLING

IS country music going the way of the Edsel? According to a recent front-page story in the New York *Times* it is, but you'd never know it from Neil Young's latest album, "Old Ways." Neil has flirted with country in the past, of course, but here he's backed by bona-fide c-&-w music stalwarts, including Willie Nelson and Waylon Jennings. Though no one is ever going to mistake "Old Ways" for a Conway Twitty record, it could almost pass for mainstream Nashville product.

I probably shouldn't read too much into this country fling by Canada's greatest living rock star. After all, "Old Ways" follows two similarly eccentric albums in which Young essayed other styles he's not normally associated with, namely synth-pop and rockabilly. The man may or may not have gone Reaganite (as has been rumored), but this particular rural excursion probably has less to do with his politics than with his well-documented fondness for the grand musical goof. Which is a roundabout way of saying that "Old Ways" feels lightweight and offhand.

It is also a very appealing record on its own dilettantish terms. Young's quavering, cracked, occasionally off-key wailings work well in a non-rock context, and he sounds particularly good in his duets with Waylon Jennings (especially on the rousing, jews-harp-laden *Get Back to the Country*). Meanwhile,

the various Nashville musicians providing the instrumental back-ups display not a hint of condescension to the rock-star interloper providing the lead vocals, and his resurrection of the Fifties weeper *The Wayward Wind* is a genuine masterstroke, cornball Billy Sherrill strings and all.

Of course, not everything here comes off. *Misfits*, an overambitious mess about astronauts and hookers, for example, is unintentionally hilarious. And, all things considered, I'd still rather hear the kind of industrial-strength rock-and-roll that's in Young's "Live Rust" album than most of what's included on "Old Ways." But even if "Old Ways" turns out to be an attempt at enlarging Young's audience, rather than a career detour, I can live with it quite happily. Is it meant straight? Is it meant ironically? Your guess is as good as mine. But either way it makes interesting listening. *Steve Simels*

NEIL YOUNG: *Old Ways*. Neil Young (vocals, guitar); Willie Nelson, Waylon Jennings, Denise Draper (vocals); Karl Himmel (bass); Hargus "Pig" Robbins (piano); other musicians. *The Wayward Wind*; *Get Back to the Country*; *Are There Any More Real Cowboys*; *Once an Angel*; *Misfits*; *California Sunset*; *Old Ways*; *My Boy*; *Bound for Glory*; *Where Is the Highway Tonight?* GEFGEN 24068-1 \$8.98, © 24068-4 \$8.98.

SHEILA E.: Romance 1600. Sheila E. (vocals, percussion); vocal and instrumental accompaniment. *Sister Fate: Dear Michaelangelo; A Love Bizarre; Toy Box; Yellow; Romance 1600; Merci for the Speed of a Mad Clown in Summer; Bedtime Story.* PAISLEY PARK/WARNER BROS. 25317-1 \$8.98, © 25317-4 \$8.98.

Performance: *Macabre*
Recording: *Unflattering*

"Romance 1600" isn't nearly as intriguing as Sheila E. and her entourage promise to be in the cover photos,

where she poses in a see-through lace body stocking, surrounded by a gaggle of Louis XIV dandies. Her lyrics spill over with sexual innuendo, yet she acknowledges God's inspiration in the liner credits. Sheila's a conundrum, but her music is humdrum.

With the lone exception of *Sister Fate*, an oddly avant-garde, percussion-based piece that reminds one of Frank Zappa, "Romance 1600" packs all the explosive power of a soaked noisemaker. It's full of hard, choppy drums mixed way out front, pointless percussion that never builds to any kind of cli-

max (now *there's* irony), and huffing, groaning vocals that suggest an acute hormone imbalance.

I think this was supposed to be a movie-on-record (a video, I fear, lurks off stage). Songs are called "scenes," and the players are given marquee billing ("Susie D. as Dame Kelly," "Karl P. as the Court Jester"), but I couldn't for the life of me find a story. Frankly, the dull pounding doesn't encourage long, close study. *M.P.*

JONATHAN EDWARDS & THE SELDOM SCENE: Blue Ridge. Jonathan Edwards (vocals, guitar, harmonica); the Seldom Scene (vocals, instrumentals). *Don't This Road Look Rough and Rocky; How Long Have I Been Waiting for You; Seven Daffodils; Only a Hobo; I Don't Believe I'll Stay Here Anymore; God Gave You to Me;* and four others. SUGAR HILL SH-3747 \$7.98.

Performance: *Very good*
Recording: *Good*

Jonathan Edwards is, of course, the singer who had a million-selling pop record, *Sunshine*, back in 1972, and the Seldom Scene has long been recognized as one of the top progressive bluegrass groups. Both have been fixtures on the Washington, D.C., music scene for some time now (the *Sunshine* singer is a far more expressive performer than his big hit ever revealed), and when Edwards got up from the audience one night to join the Scene on stage, this LP couldn't have been far behind. The mood is high, the vocals are sure and spirited, the material, ranging from (slightly fey) Edwards originals to re-worked Dylan, Ralph Stanley, and Flatt and Scruggs, is pleasingly eclectic, and the picking, as you would expect from the Scene, is exemplary. On the whole, this is a surprisingly good and natural marriage. *A.N.*

GIRLSCHOOL: Running Wild. Girlschool (vocals and instrumentals). *Let Me Go; Running Wild; Do You Love Me?; Something for Nothing; Are You Ready?;* and five others. MERCURY 824 611-1 \$8.98, © 824 611-4 \$8.98.

Performance: *Tame*
Recording: *Mediocre*

It's estimated that 85 to 90 percent of heavy-metal fans are male. With that kind of demographic (not to mention hormonal) profile, it's a wonder there aren't a whole lot more all-female heavy-metal acts. Call me a sexist pig, but I think it's because girls just aren't big and strong enough to handle the dangerous decibels or fast enough to pull off the smoke-machine guitar solos. Heavy-metal is a contact sport. It takes years of practice—pumping iron, eating raw meat, and crushing beer cans between your teeth—before you can even think about picking up a guitar.

Girlschool gives it their best shot: the fuzz-guitar solo on *Are You Ready?* could open a set for Motorhead or Iron

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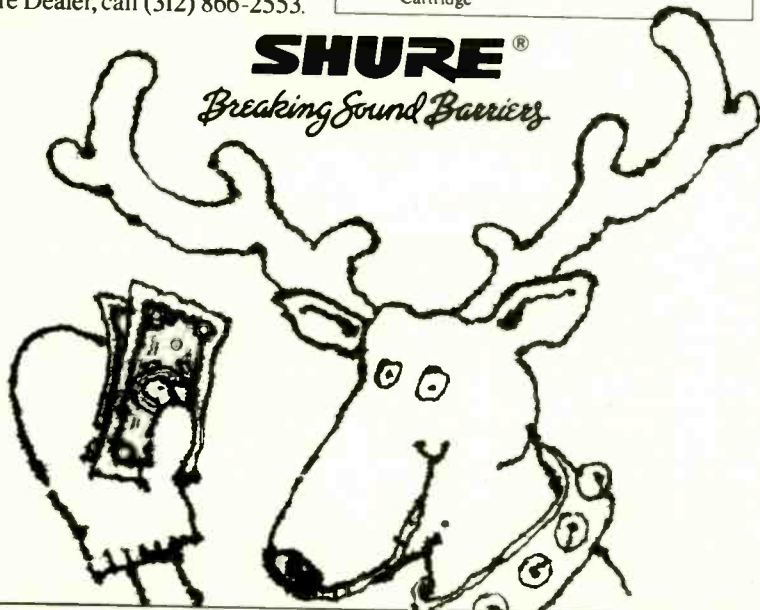
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Maiden. But by and large, the girls don't have the muscle or the might, which means they wind up being less adventurous or fun-loving than they ought to be. I expected Girlschool to rock like a reform-school riot, but it's more like a trade-school recess. Still, heavy-metal devotees will find Girlschool's promise to "see you on the road" more alluring coming from this group than from, say, Slade. *M.P.*

NANCI GRIFFITH: *Once in a Very Blue Moon.* Nanci Griffith (vocals, acoustic guitar); instrumental accompaniment. *Ghost in the Music; Love Is a Hard Waltz; Roseville Fair; I'm Not Drivin' These Wheels; Time Alone; Once in a Very Blue Moon; Spin on a Red Brick Floor;* and six others. PHILO PH-1096 \$8.98 (from Rounder Records, 1 Camp St., Cambridge, MA 02140).

Performance: *Exciting*
Recording: *Good*

"Once in a Very Blue Moon" is just about how often a record like this comes along. After two previous LP's that stood her in fine stead on the folk-music circuit, thirty-two-year-old Texas native Nanci Griffith has blossomed with an album that rides a fine line between folk and progressive country, an album that should establish her as

one of the most exciting and *literate* performers to emerge since Emmylou Harris.

One of the things that strikes me most about this album is how genuinely *sweet* it is, how infused with a Sixties innocence while still retaining a savvy, hip edge. In addition to her pretty, if slightly sentimental, ballads about restless love, Griffith—who wrote or co-wrote nine of the thirteen songs—offers a number of intriguing story-songs, among them Richard Dobson's rocking, wry *Ballad of Robin Winter-Smith* and her own *Mary & Omie*, a look at the contented though uneventful lives of an aging, middle-class black couple chasing the American dream in Houston.

The level of musicianship producer Jim Rooney has insisted on here is extraordinary. With some exceptions, such as New Grass Revival's Bela Fleck, the Everly Brothers' guitarist Phillip Donnelly, and several members of Griffith's touring band, back-up is by the usual hot Nashville studio pickers. But Rooney has wooed them out of that standard-session ennui and allowed them to stretch out and play with the kind of fervor that has, unfortunately, become rare in today's assembly-line studio work. Overall, the production is as crisp and invigorating as a new winter's morning.

For anyone tired of the slick, country-

politan formula or weary of mediocre writing that passes for great, Nanci Griffith is welcome respite. *A.N.*

LODGC: *Nomadic Sands.* Lodgic (vocals and instrumentals). *Romance; Step Back; Lonely Man; Red Light; Rise & Fall;* and five others. A&M SP-5094 \$8.98, © TP-5094 \$8.98.

Performance: *Yes men*
Recording: *Excellent*

This album is an artfully arranged, engineered, and performed bit of "progressive" rock. I suspect Lodgic was after more than just a technical triumph here, but that's what it is—an exceedingly accomplished derivative of Yes, Genesis, and the Police. From the sing-song syncopation that pervades almost every track like Jon Anderson's ghost to the Stewart Copeland drum beat of *Push So Hard* and the Phil Collins-like vocal of *In the Cards*, "Nomadic Sands" is done strictly by the book. It's an absolutely seamless job.

So why, if the group's models are so high-brow, does Lodgic wind up seeming more like the middle-brow technocrats in Journey? Part of the reason is that they've broken one of the cardinal rules of art rock: don't affect a British accent if you're from California. More important, they lack vision. Only Sting could give us the unrepentant street-

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walker of "Roxanne," but anyone could come up with a runaround like Lodgic's *Linda Sue*. M.P.

CHERYL LYNN: *It's Gonna Be Right*. Cheryl Lynn (vocals); vocal and instrumental accompaniment. *Fidelity; Fade to Black; Love's Been Here Before; It's Gonna Be Right; Let Me Love You*; and four others. COLUMBIA FC 40024, © FCT 40024, no list price.

Performance: *Great voice*
Recording: *Very good*

There can be no doubt that Cheryl Lynn has one of the fabulous voices of the day, a voice with a fine clarity of tone, a wide range, and knockout power, but it has been some time since she has broken out of the rigid commercial mold and shown us all she has to offer. And she doesn't here except in *Let Me Love You* and *Love's Been Here Before*. The latter is truly worthy of her artistry, but the rest of the album, like Lynn's other recent releases, is a less than satisfactory showcase for her talents. P.G.

RENÉ AND ANGELA: *Street Called Desire*. René and Angela (vocals); vocal and instrumental accompaniment. *Save Your Love (For #1); I'll Be Good; No How—No Way; Street Called Desire; Your Smile; You Don't Have to Cry; Who's Foolin' Who; Drive My Love*.

MERCURY 824 607-1 \$8.98, ©824 607-4 \$8.98.

Performance: *Promising*
Recording: *Satisfactory*

René and Angela, an attractive new duo, lead off this album with a most engaging selection, *Save Your Love (For #1)*, that skillfully combines a rap by guest artist Kurtis Blow with frenetic but pleasing dance rhythms. The combination works so well I was almost sorry it wasn't used on the rest of the set. But René and Angela have qualities that distinguish them from similar duos, and they sing throughout with a vitality and verve that should win them many fans. Another highlight is *Your Smile*, with a haunting interpretation by Angela, but the album as a whole deserves attention. P.G.

JEAN RITCHIE: *The Most Dulcimer*. Jean Ritchie (vocals, dulcimer); instrumental accompaniment. *Pretty Saro; Edward; Killiekrankie; The Haven of Rest; Wintergrace*; and nine others. GREENHAYS GR 714 \$8.98 (from Greenhays Records, P.O. Box 361, Port Washington, NY 11050).

Performance: *Quiet beauty*
Recording: *Good*

Jean Ritchie has been a legend in folk music circles for the past thirty years or

so, her songs about a vanishing way of American life making her something of a national treasure. What made her integral to the folk movement originally was that she brought authentic mountain music out of her native Kentucky and presented it in its pure and unadulterated form to a public that knew little about the oral tradition. In addition, it was largely through Ritchie's popularity that the mountain dulcimer gained prominence as more than a regional folk instrument.

Now sixty-two, Ritchie has made about forty albums, all with dulcimer accompaniment. Inevitably, purists would ask her for more songs with even more dulcimer, hence "The Most Dulcimer," as clean and unassuming an album as you are ever likely to find. The bulk of the material is made up of Ritchie Family tunes, or her own compositions, old-timey songs she has sung since girlhood. The pace of the album is slow, almost that of another space in time.

"I see folk music as a river that never stops flowing, and myself as a carrier of tradition," Ritchie once told me. "The Most Dulcimer" is another vital current in that age-old stream, enjoyable both as an instrumentalist's showcase and as a spiritual anodyne for modern-day madness. Either way, this is an album of exquisite beauty. A.N.

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ARETHA'S ZOOMIN'



ARETHA FRANKLIN'S first big hit in years, *Freeway of Love*, leads off her new album, "Who's Zoomin' Who?" It is indeed an irresistible number that fairly zips across the turntable, and Franklin's electrifying delivery of the catchy melody and amusing lyrics make this track alone worth buying the album for. The material on some of the other tracks seems innocuous by comparison, but Narada Michael Walden's up-to-the-minute production and Franklin's exceptionally versatile performances combine to give them interest too.

Aretha Franklin once dominated black popular music, but in recent years it has seemed that the times have passed her by. She's done a lot of shifting around in search of the right producer while a new generation has grown up to the thunderous beat of disco, which gives excellence in singing and playing a back seat to electronic gimmickry. "Who's Zoomin' Who?" brings Franklin's artistry into the present, where her singular ability to take a sow's ear of a song and turn it into an uncommonly beautiful silk purse sets the album apart despite all the familiar musical trappings.

On *Sisters Are Doin' It for Themselves*, Franklin takes a rockish stance toe to toe with the Eurythmics, but she also sings Van McCoy's *Sweet Bitter Love* with gut-wrenching emotional intensity. She even undulates her way flawlessly through the reggae beat of *Push*. In short, she does what is next to impossible: meeting the commercial demands of the day while upholding her integrity as an artist.

"Who's Zoomin' Who?" is not a great album, but it's full of great moments. Only a genius like Aretha Franklin could have pulled this one off.

Phyl Garland

ARETHA FRANKLIN: *Who's Zoomin' Who?* Aretha Franklin (vocals); vocal and instrumental accompaniment. *Freeway of Love; Another Night; Sweet Bitter Love; Who's Zoomin' Who?; Sisters Are Doin' It for Themselves; Until You Say You Love Me; Push; Ain't Nobody Ever Loved You; Integrity.* ARISTA AL8-8286 \$8.98, © AC8-8286 \$8.98.

SCRITTI POLITTI: *Cupid and Psyche 85.* Green (vocals); David Gamson (keyboards); Fred Maher (drums); vocal and instrumental accompaniment. *The Word Girl; Small Talk; Absolute; A Little Knowledge; Don't Work That Hard;* and four others. WARNER BROS. 25302-1 \$8.98, © 25302-4 \$8.98.

Performance: *Manicured*
Recording: *Fine*

Scritti Politti is a band with a much longer history than a discography. It started as a punk band at the end of the Seventies, just as punk was running out of steam, but became a cult favorite in Britain for its anarchistic, noisy style and outspoken theories of pop music. The original Scritti Politti disbanded, and only one of the old members, the vocalist called Green, is on "Cupid and Psyche 85," the first U.S. release under the Scritti Politti name. For anyone acquainted with Scritti Politti's underground reputation as musical revolutionaries, it will come as perhaps as great a shock as a gospel record from Iron Maiden.

"Cupid and Psyche 85" is diddling, nose-candy synth pop—stylish, well-groomed, and soulless, with all the

vacuous energy of a cocaine rush. Green's stylized, high-pitched vocals are so coy and precious you want to grab him by his Polo by Ralph Lauren collar and rub his face in a tube of Vidal Sassoon styling mousse. His free-association lyrics don't connect with anything recognizably real. I think he must have been imagining a Bloomingdale's mannequin when he wrote them. To make the sellout complete, the new group invited disco emperor Arif Mardin to produce three tracks.

You may find yourself liking the album at first—I did. But after *The Word Girl* and *Small Talk*, things slide precipitously. Suddenly you wake up, and you're listening to a wimp. M.P.

SQUEEZE: *Cosi Fan Tutti Frutti.* Squeeze (vocals and instrumentals); vocal and instrumental accompaniment. *Big Beng; By Your Side; King George Street; I Learnt How to Pray; Last Time Forever;* and five others. A&M SP-5085 \$8.98, © TP-5085 \$8.98.

Performance: *Unsettling*
Recording: *Good*

"Cosi Fan Tutti Frutti" reunites, after a three-year hiatus, what is arguably the

brightest British pop group of the Eighties, and original keyboardist Jools Holland is back for the first time since 1980's "Argy Bargy." But no one here sounds particularly happy about it. "Cosi" aims for a complex, multi-layered arrangement of synthesizer, rhythm, and vocal tracks, but everything moves in fits and starts. The drumming is labored, the interplay among keyboard, guitar, and vocals impatient and unfocused. Then again, the songs aren't the sunniest. *Big Beng* relives a nightmarish drug episode; in *King George Street*, a woman sends her drunken husband packing while their two children look on; *Last Time Forever* is a man's farewell to the lover he's just murdered. Drunkenness, starvation, skyjacking, football riots, it's all here.

"Cosi Fan Tutti Frutti" is unsettling, but it's not altogether unpleasant—Chris Difford and Glenn Tilbrook's vocals draw you into their gruesome little vignettes with artful guile, and the sound of these tunes is engaging even if their structure isn't. M.P.

KEITH STEGALL. Keith Stegall (vocals, guitars, keyboards); vocal and instrumental accompaniment. *California; I Want to Go Somewhere; Whatever Turns You On; Daylight Lovin' Time;* and six others. EPIC BFE 39892, © BFT 39892, no list price.

Performance: *Impressive debut*
Recording: *Good*

Keith Stegall may be a new name on the performing scene, but as a songwriter he has already collected a shelf full of BMI awards, notably for Dr. Hook's *Sexy Eyes*, Al Jarreau's *We're in This Love Together*, and Leon Everette's *Hurricane*.

On this, his debut album, Stegall sounds a little like Steve Wariner, and several of his tunes have the overtones of early Rodney Crowell. A protégé of Kris Kristofferson, the Texas-born Stegall also has a divinity degree and a father who once played in Johnny Horton's band. From a couple of the looser cuts (*Straight Shooter, Marylee*), I imagine that Stegall would have liked this album to be a little more honkin' and a lot less homogenized, but it's a catchy effort, and he's got a lot more good stuff where this came from. A.N.

SUPERTRAMP: *Brother Where You Bound.* Supertramp (vocals and instrumentals). *Cannonball; Still in Love; No In Between; Better Days; Brother Where You Bound; Ever Open Door.* A&M SP-5014 \$8.98, © CS-5014 \$8.98.

Performance: *Meticulous*
Recording: *Excellent*

This is Supertramp's first album without Roger Hodgson, who with co-founder Rick Davies directed the group, sharing songwriting and lead vocals. Hodgson's high-pitched, tremulous crooning was, along with Davies's tinny piano, Supertramp's signature. Unfor-

tunately, it was a sweet, gooey sort of stamp. Without him, Supertramp is as slick as ever but not nearly as syrupy—a considerable improvement.

While the lyrics on "Brother" are throwaways, the arrangements are characteristically crisp and even a bit less fastidious than usual for this band. The most immediately likable song is *Canonball*, a laundry list of clichés but a nicely grooving workout nonetheless. The album's centerpiece is the title track, a twenty-minute rock mini-drama about a paranoid citizen who's convinced Armageddon is imminent. Also of interest are the background vocalists on *Better Days*: Ronald Reagan, George Bush, Walter Mondale, and Geraldine Ferraro—all made possible through the magic of magnetic tape. *M.P.*

KIRI TE KANAWA: *Blue Skies*. Dame Kiri Te Kanawa (vocals); Nelson Riddle and His Orchestra, Nelson Riddle arr. and cond. *Blue Skies; Here's That Rainy Day; Yesterdays; True Love; When I Grow Too Old to Dream;* and seven others. LONDON ◊ 414 666-1 \$10.98, ◊ 414 666-4 \$10.98, ◊ 414 666-2 no list price.

Performance: *Lush*
Recording: *Excellent*

When famous opera singers decide to have a go at popular music, most of

them fall on their faces, producing recorded curiosities that please neither opera fans nor pop music fans. Here Dame Kiri Te Kanawa does not fall on her face.

Julia Migenes Johnson is the only opera singer I know who is totally convincing in producing a pop sound and in handling the pop idiom, but Dame Kiri did some club work in her student years, so she knows how to rein in her big voice and sing for a microphone. She does not sound like a prima donna slumming in Las Vegas. She sounds like the winner of a Barbra Streisand sound-alike contest. The resemblance is uncanny, and to her own beauty of tone and a keening Streisand quality Dame Kiri adds an expressive vibrato.

The late Nelson Riddle, who worked with such pop singers as Frank Sinatra and Linda Ronstadt, contributes luscious arrangements, and his orchestra plays gorgeously. The whole thing is beautifully recorded, but the album is marred by the same monotony that is a drawback of some of Dame Kiri's aria recitals. No matter what the songs are about, she makes them all sound alike. Still, this is a very pretty record that will no doubt give pleasure to a great many people. *William Livingstone*

UB40: *Little Baggarriddim*. UB40 (vocals and instrumentals); Pato, Chrissie

Hynde (vocals). *I Got You Babe; Don't Break My Heart; One in Ten; Mi Spliff; Hip Hop Lyrical; I Got You Babe (dub version)*. A&M VIRGIN SP-6-5090 EP \$6.98.

Performance: *Surprising*
Recording: *Good*

You may be lured into picking this one up for the wrong reasons—a cover of *I Got You Babe*, with Chrissie Hynde singing Cher's part, or English rap artist Pato "toasting" on *Hip Hop Lyrical Robot*. In fact, the guest-star numbers on "Little Baggarriddim" are disappointing; Hynde's vocal is fine, but Sonny Bono's doe-eyed testimonial sounds even sillier than usual when set to a reggae rhythm, and Pato's legendary idiosyncrasy never materializes beyond the weird premise of the song's title. But the original tracks are real treasures, and three songs here make this EP a must for UB40 fans: *Don't Break My Heart*, a seductive yet threatening love song based on a Pakistani folk tune; the angry *One in Ten*, jumping with restless energy; and *Mi Spliff*, a worn-out message but a good groove. *M.P.*

GENE WATSON: *Memories to Burn*. Gene Watson (vocals); Farewell Party Band (instrumentals); vocal and instrumental accompaniment. *The New York Times; Get Along Little Doggie; Memo-*

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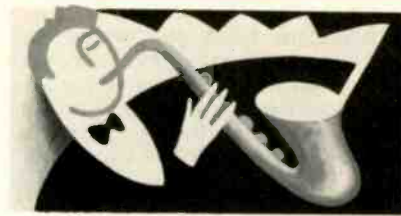
Performance: *Smooth and sassy*
Recording: *Very good*

Gene Watson, a master of the pure, honky-tonk school of country music, seems to get better every time out. After seventeen albums, "Memories to Burn" is his first self-produced effort, and it's evident from the impeccable song selection and Watson's ebullient enthusiasm that someone should have let him get his hands on the wheel long before this. Watson also shows here, in his first LP

for Epic, that he can sell an uptempo song as well as he can sell his ballads.

Long-time Watson fans will notice that the arrangements and instrumentation are a tad more uptown than on his previous albums, the electric piano, clavinet, and sugary chorines popping up in places you wouldn't expect them. Actually, I could do without most of these minimal trimmings—not for me the chorines—but they don't do any real damage, especially when compared with the surplus of treats like the addition of fiddler Hoot Hester to Watson's own Farewell Party Band. *A.N.*

JAZZ



DAROL ANGER, DAVID BALAKRISHNAN, AND MATT GLASER: *Jazz Violin Celebration!* Darol Anger, David Balakrishnan, Matt Glaser (violin); Mike Marshall (mandolin, guitar, mandocello, fiddle); Mike Wollenberg (electric guitar); Rob Wasserman (string bass). *Street Stuff; Swing That Music; Wow; Nutty; Angel Eyes; Foes Juice; Selena; Opus de Funk; No Tomorrow; Big Mom.* KALEIDOSCOPE F-22 \$8.98, ©C-22 \$8.98 (from Kaleidoscope Records, P.O. Box O, El Cerrito, CA 94530).

Performance: *Spirited*
Recording: *Excellent remote*

Violinists Darol Anger, David Balakrishnan, and Matt Glaser obviously share an affinity for Stéphane Grappelli, Stuff Smith, Joe Venuti, and other great jazz violinists to whom their new album is dedicated, but the music on "Jazz Violin Celebration!" often comes close to straying into country territory. Not that there is anything wrong with that, but if you are a jazz purist, the country inflections might bother you.

Recorded in concert at San Francisco's Great American Music Hall late last year, this is a spirited get-together of players often associated with the so-called "new acoustic music" scene. Performers and audience alike seem to be having fun as the program ranges from original compositions to material by Thelonious Monk, Louis Armstrong, and Lennie Tristano. *C.A.*

DAVID BAKER: *RSVP.* David Baker (cello); Jim Beard (piano); Pat Harbison (trumpet); David Kay (saxophone); Bob Hurst (bass); other musicians. *Lerma Samba; RSVP Mr. Moody; Cahaphi; Lima Beba Samba; Jeanne Marie at the Picture Show.* LAUREL LR-504 \$9.98.

Performance: *Boppy*
Recording: *Quite good*

Most post-bebop jazz directions have turned out to be dead ends. This is not to say there haven't been some valid innovations since the Charlie Parker era, but only to recognize the treadmill that "modern" jazz has been on for the past three or four decades. Perhaps it all really ended with Coltrane—only time will tell. Simply wiring up traditional instruments or creating new electronic ones has not—so far, at least—produced any new music as exciting and fresh as bop was when it first emerged. Possibly with that situation in mind,

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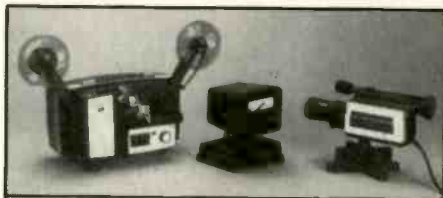
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cellist David Baker named his group the 21st Century Bebop Band. "RSVP" is the band's second album, and major personnel changes have not robbed it of the salient qualities so much in evidence on the first one. Baker's approach is fresh, and he again demonstrates his fondness for bop, flair for musical humor, strength as a composer, and ability to pick excellent musicians from the great cadre of unknowns. If any single track best demonstrates these strengths, it is *RSVP Mr. Moody*, which delves into the free-form jazz idiom. My personal favorite: *Lerma Samba*. C.A.

BILLY BANG: *The Fire from Within* (see Best of the Month, page 88)

ARNETT COBB: *Keep On Pushin'*. Arnett Cobb (tenor saxophone); Joe Newman (trumpet); Al Grey (trombone); Junior Mance (piano); George Duvivier (bass); Panama Francis (drums). *Cheatin' on Me; Deep River; Stardust*; and three others. BEE HIVE BH-7017 \$8.95 (from Bee Hive Jazz Records, 1130 Colfax St., Evanston, IL 60201).

Performance: *Mellow*
Recording: *Very good*

"Keep On Pushin'" is a typical album by tenor saxophonist Arnett Cobb, which is to say that it swings, stomps,

and eases its way to your ears. I happen to like this kind of laid-back, small-band swing—a trio is augmented on two tracks by trumpeter Joe Newman and trombonist Al Grey—and I am a long-time fan of Arnett Cobb and pianist Junior Mance. But how many albums like this do we really need? Well, I think there is always room for one more good one, so pardon me while I squeeze this into my crowded collection. C.A.

JEANNIE CHEATHAM: *Sweet Baby Blues*. Jeannie Cheatham (piano, vocals); Jimmy Cheatham (bass trombone); Snooky Young (trumpet); others. *Brand New Blues Blues; Meet Me with Your Black Drawers On; I Got a Mind to Ramble; Ain't Nobody's Business If I Do; Sweet Baby Blues*; and three others. CONCORD JAZZ CJ-258 \$8.98, © CJ-258-C \$8.98.

Performance: *Flawless*
Recording: *Very good*

I have been aware of trombonist Jimmy Cheatham's talent for many years, but "Sweet Baby Blues" served as my introduction to his wife, pianist/singer Jeannie Cheatham, whose album this really is. She is simply wonderful. Whether she's delivering Kansas City fare, such as *Roll 'em Pete*, one of Bessie Smith's numbers, or an original like *Meet Me with Your Black Drawers On*, she is

right at home and right on target. If you wonder about the merits of the rest of the band, I need only tell you that it includes—along with Jimmy Cheatham—trumpeter Snooky Young, veteran bassist Red Callender, and saxophonists Charles McPherson, Curtis Preagler, and Jimmie Noone. (Noone, incidentally, is the son of the famous New Orleans clarinetist who fascinated Maurice Ravel and served Benny Goodman as a model.) All in all, this is a nearly perfect album. I only wish that credit had been given to the late Alberta Hunter for composing *I Got a Mind to Ramble*. C.A.

KEVIN EUBANKS: *Opening Night*. Kevin Eubanks (acoustic and electric guitars); Branford Marsalis (tenor saxophone); Kent Jordan (alto flute); Buster Williams (bass); Kenny Kirkland (acoustic piano); Big Black (tumba drums); other musicians. *Opening Night; Shades of Black; The Navigator; Thought About Thinking*; and four others. GRP GRP-A-1013 \$8.98, © GRP-D-1013 no list price.

Performance: *Young lions*
Recording: *Very good*

Like others of my generation, who formed our musical tastes listening to Miles, Monk, Mingus, and Coltrane, I have deplored the way jazz has been

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PHILIP GLASS'S "SATYAGRAHA"



Douglas Perry, center, in the 1981 production at the Brooklyn Academy of Music

IF there were any lingering doubt about Philip Glass's place at the front ranks of modern music, the brilliant realization of his *Satyagraha* on CBS Masterworks should settle the issue. Superbly performed and recorded and lavishly packaged, the three-disc set reveals the grace and power of Glass's most "mainstream" work.

"Satyagraha" was the name the Indian leader Mahatma Gandhi gave to his philosophy of passive resistance, a name combining the Sanskrit words for "truth" and "strength." Glass's work traces the birth, development, and triumph of Satyagraha, telescoping into a single metaphorical day events from Gandhi's twenty-one years in South Africa, where he first gained world prominence before leading India to independence. The book, adapted from the Hindu sacred text the *Bhagavad-Gita* by novelist Constance DeJong, is in Sanskrit, a language of clipped, breathy phrases that lend themselves to Glass's highly rhythmic style. But the text serves not so much a narrative function as it does to provide spiritual commentary on the stage action, a series of stylized episodes meant to convey the growth of Gandhi's philosophical and moral resolve and the mounting drama as he put Satyagraha to sterner and sterner tests against the repressive South African government.

If all this sounds forbiddingly academic, toss aside the text and let yourself be absorbed in the luxuriant atmosphere of Glass's monumental score. The performance by the New York City Opera Orchestra and Chorus, with Douglas Perry as Gandhi, captures all of the work's rhythmic complexity, rich sonority, and emotional conviction.

Glass is a minimalist but not in the way most of us mean. Far from being dissonant, ascetic, or aleatoric, Glass's music is tonal, harmonic, contrapuntal, and tightly structured. But he *does* make a little go a long way. His melodies are invariably brief, often little more than scales, and they can be repeated as many as thirty or forty times. Glass generates interest with his singular approach to harmony and counterpoint, setting rhythmic wheels

within wheels, playing one against another and introducing subtle variations that gradually swallow up the original theme. At times the music is meditative; at others it whirs like ticking clockworks.

Glass also has an almost Wagnerian worship of sound as such. *Satyagraha*, unlike *Einstein on the Beach*, is scored for a full orchestra of strings and woodwinds, with an organ and synthesizer added, and Glass deploys these symphonic forces with spectacular sonic results.

Although repetition is indeed central to his music, he achieves an extraordinary range of moods. Terrific tension and confusion are created in the confrontation between Gandhi and an angry mob as a roiling organ is pitted against the nervous staccato of a chanting men's chorus. Later, the confusion turns to resolute courage in Gandhi's solo at the conclusion of Act III when the police drag the demonstrating Satyagrahi off to jail one by one.

Douglas Perry, who sang the extraordinarily demanding role of Gandhi in the work's Amsterdam premiere and in its subsequent U.S. productions, scores high marks here. His pure, serene tone is just what's called for, allowing the composer's spiritual and emotional message to come through. The other soloists are adept at managing the intricate phrasing called for in the duets and trios, and the choral passages are breathtaking. The sound is lush, almost otherworldly.

The recording itself was done by overdubbing vocal and instrumental layers, which makes for consistency, balance, and fidelity—a superior rendering of a superior performance. *Mark Peel*

GLASS: *Satyagraha*. Douglas Perry (tenor), Gandhi; Claudia Cummings (soprano), Miss Schlesen; Sheryl Woods (soprano), Mrs. Naidoo; Rhonda Liss (contralto), Kasturbai and Mrs. Alexander; Robert McFarland (baritone), Mr. Kallenbach and Prince Arjuna; Scott Reeve (bass), Parsi Rustomji and Lord Krishna. CBS ◉ I3M 39672 three discs, © I3T 39672 three cassettes, © M3K 39672 three CD's, no list price.

buried beneath the mountain of inconsequential pop hits that commercial radio bombards us with. How will young people ever come to love jazz if they never hear it? And how on earth will future musicians ever be able to play this complex, cerebral music?

Evidently, the problem has engaged some attentive members of the coming generation. With the advice of Wynton Marsalis, who at twenty-three has become their "godfather," several fine young players, led by twenty-seven-year-old guitarist Kevin Eubanks, have assembled an album that pays full homage to the intellectual demands of the jazz tradition while presenting new statements in their own style. The dominant voice here is that of Eubanks, whose performing virtuosity is as impressive as his musical conceptions. This is tough-minded music, and his fleet and thoughtful execution is worthy of his idol Wes Montgomery.

The title track, which features Eubanks in close interplay with tenor saxophonist Branford Marsalis, pushes both of them to the outer limits of their ability. But one of the most interesting tracks is *Shades of Black*, pairing Eubanks with Big Black on tumba drums in an Africa-oriented rhythmic tour de force. Other notable contributions are made by Kent Jordon on alto flute, Kenny Kirkland on piano, and David Eubanks on acoustic bass, with solid assistance from veteran bassist Buster Williams.

But above all, this is Eubanks's album, as he proves in his extended solo on *Thought About Thinking*. He can express any thought that comes to his mind in eloquent musical terms, and this release suggests that he has even greater depths yet to be explored. *P.G.*

JIM HOWARD/PAT SULLIVAN: *Stairway Down to the Stars*. Jim Howard/Pat Sullivan Jazz Orchestra (instrumentals). *Conversation; Stairway Down to the Stars; The Dance and the Romance Goes On Forever*. PJS WRC1-2536 \$8.98 (from Pasulvan Music, 19 Welbourn Dr., Hamilton, Ont. L9A 3N1).

Performance: *Excellent*
Recording: *Very good*

This album, which takes its title from a three-part suite by Patrick J. Sullivan, is dedicated to New York's Village Vanguard, the city's oldest jazz spot—where, indeed, thousands have come down a steep set of stairs to catch some of the music's greatest stars. Sullivan is presumably Canadian, at least that's where the album comes from, but I don't have to guess at his degree of talent or his love for jazz. Both are eloquently demonstrated in the music, which is expertly performed by a twenty-one-piece orchestra conducted by Jim Howard.

This music is more for the mind than the body, but it is certainly not without rhythmic properties. There are moments when you're transported back to

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the early Miles Davis/Gil Evans collaborations, especially on *Conversation*, a Gordon Delamont composition dedicated to Paul Desmond. If you like a big-band sound that avoids swing-era clichés and appeals to your intellect while it stimulates your ears, this album's for you. C.A.

MIKE PETERS, BOB WILBER, AND BIRELE LAGRENE: *Django's Music*. Mike Peters, Birele Lagrene (guitar); Bob Wilber (clarinet, soprano and alto saxophones); other musicians. *Between the Devil and the Deep Blue Sea*; *Djanguology*; *Mélo die au crépuscule*; *Honeysuckle Rose*; *Vamp*; *Porto Cabello*; and four others. STASH ST 253 \$8.98, © C253 \$8.98 (from Stash Records, P.O. Box 390, Brooklyn, NY 11215).

Performance: *Spirited*
Recording: *Quite good*

Guitarist Django Reinhardt flourished during the Thirties as a member of the Quintet of the Hot Club of France. Even in today's more intimate global jazz community, it would be hard to find another player like him anywhere. A Belgian Gypsy, Django combined elements of jazz with the music of his own people to create a compelling blend guaranteed to move the body and soul of anyone within earshot. There have been surprisingly few Django imitators over the years, and no one quite captured his very special mixture—no one, that is, until a Gypsy teenager named Birele Lagrene came on the scene in the late Seventies.

Lagrene had just turned eighteen, but he was already a seasoned performer when he made the two appearances preserved on "Django's Music." The album was produced by Django devotee Mike Peters, who shares top performer billing with Lagrene and saxophonist Bob Wilber. The result is a glorious tribute to the late guitar star, a trip down memory lane for some of us and an education for others. No one can play Django's hauntingly beautiful *Mélo die au crépuscule* as well as he did, of course, but the band tackles the job with pleasant results. Such standards as *Between the Devil and the Deep Blue Sea* and *Honeysuckle Rose*—the latter a blend of Benny Carter's famous 1937 swing-session arrangement with a Reinhardt riff—capture the feel of the milieu in which the guitarist blossomed. Bob Wilber smoothly demonstrates his well-known love for the jazz tradition, Herb Gardner pokes his trombone at the tradition's very core, and Mike Peters shines the brightest on a fragile Reinhardt piece called *Micro*.

If Django's music is new to you, this album should serve as a key to the treasures that inspired it. But Wilber, Lagrene, and Peters would undoubtedly agree that there is nothing as satisfying as the real thing, so while I applaud their efforts here, I also recommend that you treat yourself to some of the wonderful Django albums still in the catalog. C.A.

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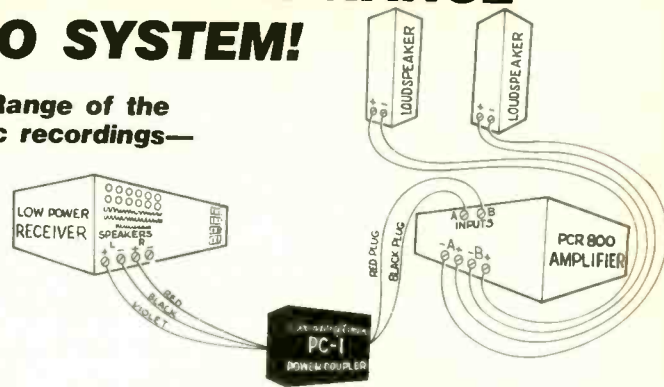
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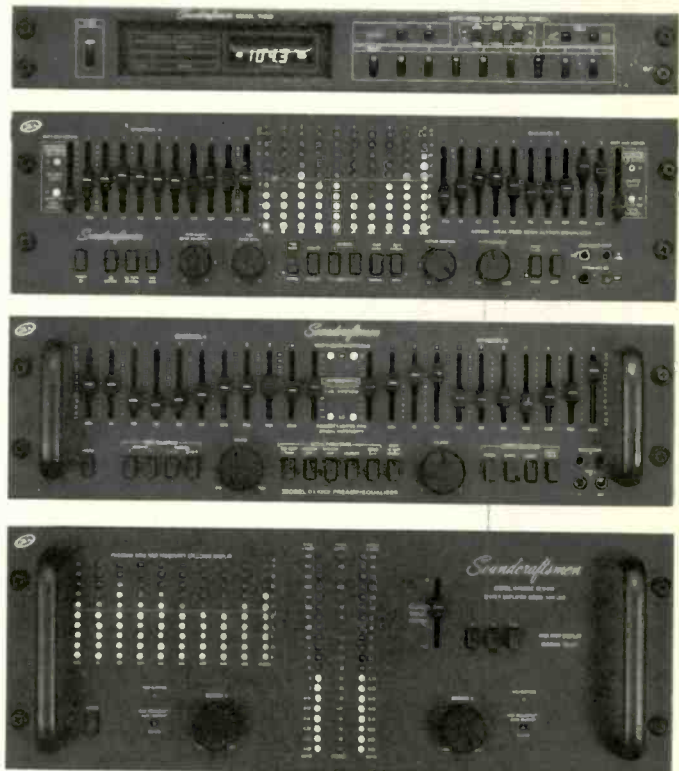
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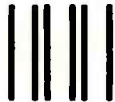
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CRITICS' CHOICE FOR CHRISTMAS

Continued from page 74

Replacements (Twin Tone TTR-8441). By turns passionate, funny, raucous, and endearingly melodic, this is an album to cherish (and play loud). It's by a young Minneapolis band that manages to recall nearly every great rock-and-roll group of the last twenty years, from Buffalo Springfield to the early Clash. If the post-punk independent-label movement has produced a better justification for its existence than this particular slab of vinyl, I haven't heard it. Get it from Twin Tone, 2541 Nicollet Ave. S., Minneapolis, MN 55404.

In a somewhat tonier vein, I'm also hot for *King's Row* (Varèse Sarabande SDG-305), a new recording of the Erich Wolfgang Korngold score of what is arguably the only good movie Ronald Reagan ever appeared in. Sweepingly melodic in the grand manner (and obviously an influence on John Williams in his scores for *Star Wars* and *Superman*), the music is conducted here by Charles Gerhardt. It has been digitally recorded, and the Compact Disc version will serve as a good demo for your CD player.

Then, there's "Reconsider Baby," by Elvis Presley (RCA AFL1-5418). This one got lost in the flurry of recent Presley reissues, but it's an absolute stunner. A blues collection (Presley recorded a lot more straight blues than you might remember) with tracks dating from the Fifties to the Seventies, it demonstrates again the astonishing breadth of Presley's talent, and one track in particular, a firebreathing version of *Ain't That Loving You Baby*, is as exciting a piece of music as was released in 1985 by anybody. The CD version, by the way, sounds terrific.

Joel Vance

I know I live in the age of computers, Compact Discs and video cassettes, but as a gleeful reactionary I hold to traditional values—the manual typewriter, perfumed women, and the vinyl record album. I hope my Yuletide stocking—which has an immense capacity—contains not only the latest Pointer Sisters album, but every one they ever made; the amalgam of songwriting, production, and performance is wonderful. I'd also be pleased to have Billy Joel's two-record "Greatest Hits" album (Columbia C2 40121). I wouldn't listen to the cuts where he takes himself seriously, but I would delight in the retrospective of his true talent for inspired parody.

There was a bit of Christmas last July when Circle Records released "Bill Challis and His Orchestra: 1936" (CLP-71), the first of two albums of rare radio-syndication orchestra dates by this jazz arranger *extraordinaire*; the second volume would be most welcome. Another wish is to have Huey Lewis release a new album before the year is out—who else combines rock with common sense? Finally, could I have Tina Turner? Not an album—I mean *her*. Work on it, Santa.

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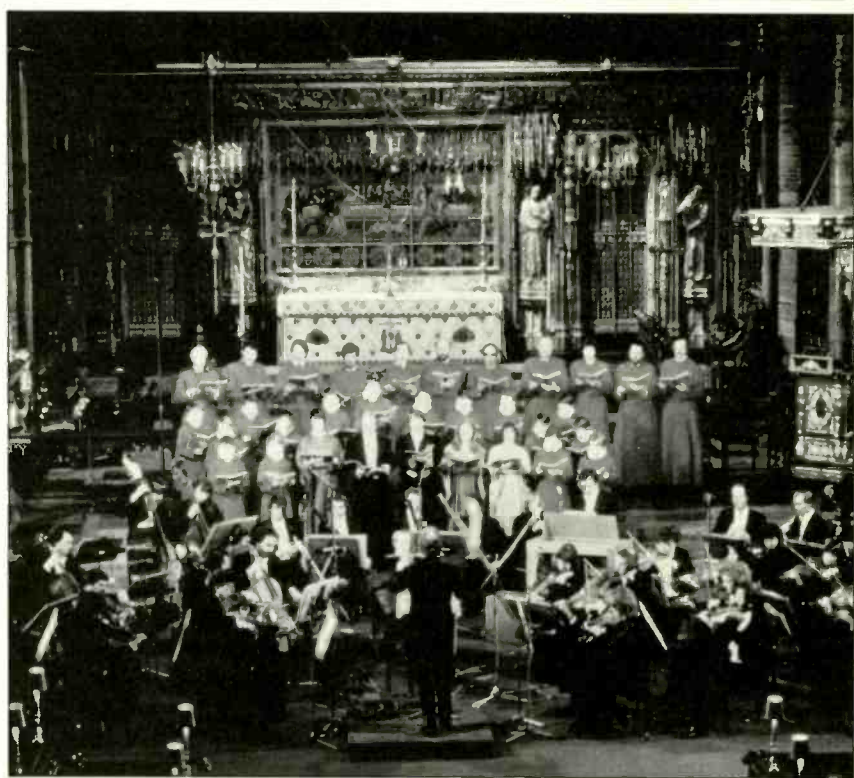
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VIDEO REVIEW



AN AUTHENTIC "MESSIAH"

HANDEL'S *Messiah* is certainly the world's most popular oratorio, and probably the best-known choral work around. It has been performed in many unorthodox ways over the years, from versions for mandolin and piccolos to one that featured eight grand pianos. Handel himself would probably have regarded as "unorthodox" the treatment we accept as "traditional"—that is, with the massive choir and equally imposing orchestra that became the rule in Victorian England. The truth is that *Messiah*, like so many other masterpieces from centuries past, moved with the times; as instruments took on new shapes and sounds, so did Handel's oratorio.

Christopher Hogwood, a man not known for taking music along beaten paths, is the conductor in a videotaped 1982 re-creation of the so-called Foundling Hospital Version of *Messiah* staged for the BBC in Westminster Abbey. This "authentic" version dates back to 1754 and calls for fewer than forty instrumentalists and a choir of some thirty men and boys. Adding to the "new" sound of this old piece is the exclusive use of period instruments or replicas of them. And, in accordance with performing practices of the time, the vocal soloists freely embellish their arias and occasionally join in the choruses.

It all adds up to a new experience with a comfortably familiar ring to it. Still imposing, *Messiah* in this form becomes a more intimate and—to my ears, at least—a more rewarding experience. This is a splendid performance in which Handel's work shines brighter than ever, like a famous old jewel in a stunning new setting, and video director Roy Tipping makes the most of it. At opportune moments, the BBC's cameras discreetly steal away from the performers and scan the beauty of the Abbey.

With Christmas coming, the nearly two and a half hours on this tape will create a seasonal mood. I only wish the performance wasn't followed by shots of Sylvester Stallone machine-gunning Vietnamese. Once again, Thorne EMI has picked a most inappropriate spot to tout its film offerings, but if you hurry to the stop button at the end of the Handel, Rambo's gun need not go off.

Chris Albertson

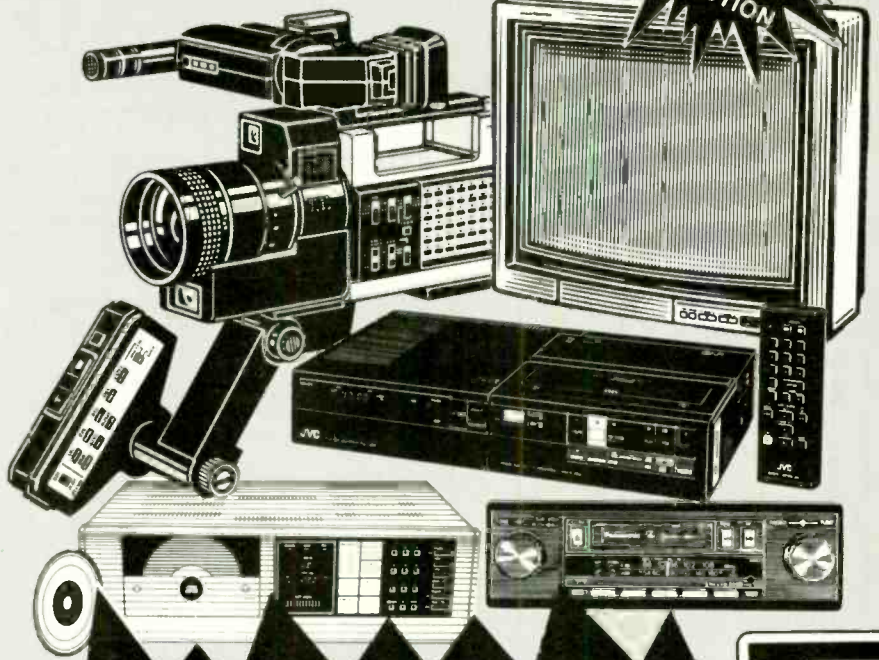
HANDEL: *Messiah*. Judith Nelson, Emma Kirkby (sopranos); Carolyn Watkinson (contralto); Paul Elliott (tenor); David Thomas (bass); Members of the Westminster Abbey Choir; Academy of Ancient Music, Christopher Hogwood cond. THORN/EMI TVE 2792 VHS \$39.95, TXE 2792 Beta \$39.95.

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Amplifiers and Preamplifiers

Apt P2 (preamplifier), Jun. 32
 Hafler DH-120 (power), Jun. 33
 Kenwood KA-828 (integrated), Feb. 30
 NAD 2200 (power), Oct. 33
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 NEC A-10 MkII (integrated), Jun. 29
 Onkyo Integra A-8067 (integrated), Dec. 48
 Parasound PR200 (preamplifier), Mar. 35
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Audio/Video Equipment

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Car Stereo (Hirsch and Greenleaf)

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 JVC KS-RX450, Dec. 26
 Nakamichi TD-700, May 40
 Panasonic CQ-S934, Jan. 18
 Realistic 12-1909, Jul. 18
 Sherwood CRD-301, Sep. 21
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Cassette Decks

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 Aiwa AD-WX220, Mar. 49
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 Hitachi D-W800, Mar. 49
 JVC KD-V6, Mar. 29
 Kenwood KX-780, Oct. 44
 Marantz PMD430, Aug. 32
 Onkyo TA-2090, Feb. 25
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 Pioneer CLD-900 LaserDisc/CD player, Feb. 50; PD-5010, Nov. 71
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 Technics SB-R100, Sep. 29

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 Linn Sondek LP12 (with Linn Itok LV II tone arm and Linn Karma cartridge), Dec. 64
 Sota Star Sapphire (with Sumiko Premier MMT tone arm and Talisman B cartridge), Dec. 64
 Technics SL-J2, Apr. 26

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 Jack Renner and the Timeliness of Telarc, Apr. 90
 John Bowers and the Civilized Loudspeaker, May 114
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 Roger Lagadec and the Great Digital Debate, Aug. 90

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 There Will Always Be a McIntosh, Nov. 152
 The Best Tone Arm in the World, Dec. 146

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 Updating Our Test Equipment, Feb. 22
 A New Low-Frequency Speaker Design, Mar. 24
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 Are Blowups Dangerous to Your (System's) Health?, Aug. 16
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A
USER'S
EVALUATION

At Home With The

PHOENIX P-250DL SURROUND-SOUND DECODER



QUAD, also called “four-channel” or “surround sound,” has more lives than Count Dracula. Drive a stake through its heart—as the audio industry did with the confusion over the incompatible SQ, QS, and CD4 formats a few years ago—and you can almost kill it, but quad keeps sneaking back in one disguise or another.

Remember when several manufacturers (including Audio Pulse, Advent, ADS, and Koss) introduced time-delay devices? These processors delayed both stereo channels by a few milliseconds and sent them to a pair of rear speakers in order to suggest the natural ambience of a concert hall, theater, cathedral, or whatever. But many audiophiles found the effects *unnatural*, and time delay alone never took hold.

But then came the video boom, bringing us Beta Hi-Fi and VHS Hi-Fi video cassettes and LaserDiscs with surround sound. Many audio/videophiles remembered the old quad decoders in their attics and set them up again. While the matrix system used for surround sound in movie theaters, Dolby MP (part of the overall Dolby Stereo setup), is not quite the same as SQ or QS matrixing, an SQ or QS decoder can still extract a good deal of the recorded rear-channel information for a home system.

Thomas R. Gillett is a regular contributor to Stereoophile and STEREO REVIEW.

by Thomas R. Gillett

There's something even better than an old quad decoder, however, for getting surround sound from recorded movies, and it works on ordinary stereo LP's and CD's too. The Phoenix Systems P-250DL Ambience/Surround Sound Decoder—\$179 in kit form or \$250 factory assembled—combines the matrix approach with time delay for results that surpass either type of processing alone. In part it works like the old Dynaquad system (or Hafler circuit) by extracting ambience information in the form of the difference between the two stereo channels (L - R). But, unlike the Dynaquad, it then subjects the ambience signal to an adjustable time delay of 5 to 50 milliseconds before feeding it to the rear speakers.

How does it sound? Marvelous! As the unit's designer, Phoenix Systems president John Roberts, explains: “Delaying the ambience channel before playback through rear speakers reduces the audibility of any direct signals still remaining. Recapture of the actual ambience gives a truer reproduction than reverbation synthesizers with their artificial ambience.”

Concert Hall Sound

I put the Phoenix P-250DL to the test first in my stereo system, which is separate from my video installation. With quad-encoded material,

it did not give four discrete channels the way a true quad decoder would. Rather, the Phoenix unit seems to combine most of the information encoded for the two rear channels and send it to both rear speakers. With ordinary stereo records it gives more or less the same ambience effect, depending on how much ambience was captured by the original recording.

When the unit is properly adjusted, there is nothing artificial sounding about the ambience. No echo effect. No instruments suddenly jumping from the front speakers to the rear ones. You can close your eyes and imagine yourself in a concert hall. The trick is not to turn up the rear speakers too loud or to overdo the time delay.

Surrounded by “Miami Vice”

The Phoenix decoder can be even more exciting with video sources. Dolby Stereo movie soundtracks are recorded in four or six discrete channels. When these are mixed down to stereo for release on video cassettes or discs, the discrete center channel is added *in phase* to both the left and right channels, while the discrete surround channel(s) are added *out of phase* to the left and right channels. Feed the stereo signals into an L-R decoder like the Phoenix, and the surround channel is retrieved.

The Phoenix even offers a center channel for five-speaker setups, deriving the center-channel signal by

PHOTO: BARNABY HALL

combining the left and right channels (L + R). I find the center channel particularly useful with my projection TV in order to fill in the "hole in the middle" left by the front stereo speakers. Since the Phoenix unit's center-channel output has its own volume control (as do the rear channels), you can adjust the sound level to your liking. You could also use the center channel to send a mono signal to a sub-woofer.

Using the Phoenix gives you more of the feeling of being at the movies. The surround effects can be quite spectacular, as I found with a VHS Hi-Fi tape of *A Passage to India*. If you like to play around, you can turn up the delay setting to make your video room sound a little like one of those glorious old 4,000-seat movie palaces.

You can also use the Phoenix decoder to get excellent surround sound from stereo TV broadcasts. Some TV shows are even said to be encoded with surround sound, including NBC's *Miami Vice*. And sporting events broadcast in stereo will give you a surround-sound effect whether they are specifically encoded or not. I tried it out, and the Phoenix gives you more of the feeling of being at the game. The effect

There's something even better than an old quad decoder for getting surround sound from recorded movies, and it works on ordinary stereo LP's and CD's too. The Phoenix P-250DL combines the matrix approach with time delay. How does it sound? Marvelous!

is to involve you more in the program material. And that's really what surround sound is all about: involvement. Two-channel sound is out there in front of you; with surround sound you're in the middle.

One thing Dolby Stereo movies have that you can't get from the Phoenix is Dolby noise reduction. Dolby surround sound uses a modified version of Dolby B (Dolby A is used overall for theater sound). The Phoenix does not decode Dolby B, yet it works remarkably well at

extracting the ambience information from Dolby-processed movies and video sources. A number of the units have even gone into theaters, the company says. Phoenix's Roberts claims that "leaving [Dolby B] out does not detract from the video sound." Yes, it might be nice to have it, but keep in mind the low price of the P-250DL.

Even so, the unit does include a quite ingenious mono/stereo switch. Frankly, I regarded this with suspicion at first—fake stereo? Have no fear. What the mono switch does (with mono source material) is to add some delayed mono signal in phase to one front channel and out of phase to the other, with a delayed mono signal fed to both rear channels. The result isn't fake stereo at all, since you don't get any strange localizations of instruments or strange voice effects. What you do get is an enhanced sense of depth and spaciousness. The mono switch is particularly useful with mono video material such as old movies and most television shows (alas, only NBC and PBS are gung ho on stereo TV as yet), but it's also helpful with old mono records.

Setting It Up

The Phoenix P-250DL is not exactly the easiest thing to add to your system, video or audio. All those wires! All those extra components! Surround sound does not make life easier, just better, and you should be prepared to spend some time in setting up.

First, you'll need an extra amplifier for the rear channels (and the center one, if you use it) since none is built into the Phoenix. This might be a good time to check your attic or closet. Remember that old integrated amplifier you retired a few years back? You could press it into service again. Or you could shop for an inexpensive new integrated amplifier. One with as little as 20 to 25 watts per channel might be adequate since you'll need roughly one-quarter as much power for the rear channels as for the front ones.

You could also use a straight power amplifier, but an integrated amp with tone controls is probably the better choice. You may not want a lot of bass in the rear channels, and you may want to roll off the highs as well—tone controls give you flexibility. (Some SQ decoders in the early Seventies came with rear-channel tone controls.)

You'll have to fiddle around with the positioning of your rear speakers to get the best effect. For instance, try them on the side walls toward the back of the room, two feet or so down from the ceiling. Incidentally, a pair of good but inexpensive bookshelf speakers will do fine, and there are many to choose from. Personally, I would avoid "full range" speakers with large woofers, which tend to pick up sound from the front speakers and

Using the Phoenix gives you the feeling of being at the movies. The surround effects can be quite spectacular. If you like to play around, you can turn up the delay to make your room sound a little like one of those glorious old 4,000-seat movie palaces.

may add a bit too much boominess to the overall sound, with a resultant loss in clarity.

You'll also have to experiment to find the right amount of time delay, and this will vary from one listening room to another. I find it best to settle on a "reference" setting for the time delay and then alter it slightly, if need be, according to the source material. It takes a while to get it right. If you hear distinct echoes, there's too much delay. If you're overly conscious of the rear speakers, they're too loud.

Speaking of time, John Roberts says that his lawyer, a novice kit builder, assembled the Phoenix P-250DL in seven hours, for a saving of \$70. I suspect the lawyer's time was worth a lot more than \$10 an hour, but how do you put a price tag on pride of accomplishment? Others who, like me, regard kit building as a form of masochism will opt for a factory-assembled unit. Either way you get a bargain. The Phoenix P-250DL has to be one of the more cost-effective ways to add surround sound to an audio/video system. □

For more information and the address of your nearest dealer, write to Phoenix Systems, Dept. SR, P.O. Box 338-B, Stone Mountain, GA 30086.

NEW PRODUCTS



Minolta

Six heads are mounted on the head drum of Minolta's MV-70S VHS Hi-Fi video-cassette recorder, four to record and play the video signals and two to record and play the hi-fi audio signals. There are also conventional stereo audio heads to play and record linear soundtracks. The signal-to-noise ratio (S/N) of the linear soundtrack is rated at 42 dB at the SP speed; the hi-fi soundtrack's S/N is rated at more than 80 dB at all speeds. Frequency response of the linear soundtrack is rated as 100 to 8,000 Hz, hi-fi response as 20 to 20,000 Hz. The 133-channel tuner can store 80 channels in memory, and the timer can be programmed to record four events over a two-week period. The supplied remote control performs fourteen functions. Price: \$1,000. Minolta, Dept. SR, 101 Williams Dr., Ramsey, NJ 07446.

Circle 127 on reader service card

Tandberg

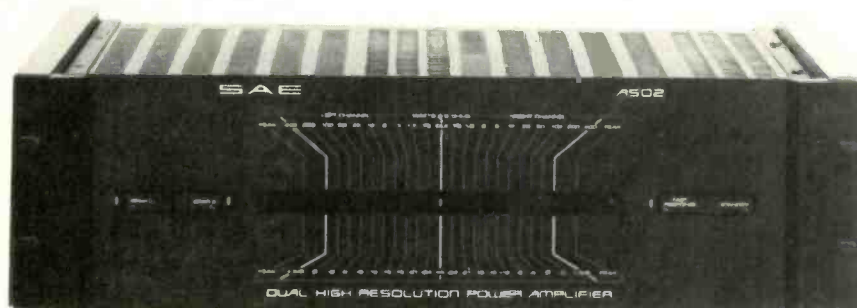
The Tandberg 3012 A integrated amplifier is a significantly revised version of the three-year-old Model 3012. The 3012 A is rated to deliver 100 watts into 8 ohms from 20 to 20,000 Hz with less than 0.02 percent distortion; its peak current rating is 30 amperes. Slew rate is given as 1,000 volts per microsecond. The amplifier uses MOSFET output devices and a high-current power supply with zero feedback. It has inputs for a turntable, a tuner, two tape decks, and a Compact Disc player; one of these can be listened to while a second is being recorded. The tone controls have select-



able turnover frequencies (100 or 200 Hz for the bass and 3,000 or 6,000 Hz for the treble) and can be defeated entirely. There is a switchable loudness contour, and one or two pairs of speak-

ers can be fed from the amplifier. Price: \$995. Tandberg, Dept. SR, Labriola Ct., P.O. Box 58, Armonk, NY 10504.

Circle 128 on reader service card



SAE

SAE's A502 "dual high-resolution" power amplifier is rated at 200 watts per channel with no more than 0.25 percent total harmonic distortion. The A502 has a self-contained bridging circuit; adjusting a rear-panel switch allows it to be operated as a mono amp delivering up to 600 watts into 8 ohms. The output stages use symmetrical, complementary circuitry with totally discrete components. Shipped with walnut-grain side panels, the A502 can also be rack-mounted. Weight is 37 pounds. Price: \$649. SAE, Dept. SR, 1734 Gage Rd., Montebello, CA 90640.

Circle 129 on reader service card

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Intraclean

The SC-1200 Compact Disc storage cabinet from Intraclean has two slotted drawers that hold twenty-eight discs each, for a total capacity of fifty-six. Measuring about 13 inches square, the solid-oak cabinet can fit neatly on a shelf of LP's. Finish is furniture-grade lacquer. Price: \$149.95. Intraclean Recorder Care Systems, Dept. SR, 4395 Valley Fair, P.O. Box 3592, Simi Valley, CA 93063.

Circle 130 on reader service card

Stanton

Stanton's popular 681EEE phono cartridge has been upgraded. Now called the 681EEE Mk IIs, the cartridge features a new Stereohedron II stylus with smaller tracing radii and a reduced front-to-back angle for improved high-frequency tracking. The stylus tip measures 0.0002 x 0.0003 inch. Tracking force should be set between 1.75 and 2.5 grams, the manufacturer recommends, in order to compensate for the effect of the brush attached to the front of the cartridge; the effective tracking force on the stylus will then be between 0.75 and 1.5 grams. Overall weight is 6.3 grams.

Each cartridge is individually calibrated at the factory for a frequency response of 10 to 20,000 Hz, channel separation of 35 dB at 1,000 Hz, and channel balance within 2 dB at 1,000



Hz. The exact test results for each cartridge are given in a certificate packaged with it. Price: \$120. Stanton Magnetics, Dept. SR, 200 Terminal Dr., Plainview, NY 11803.

Circle 131 on reader service card



Infinity

Infinity Systems' line of Video Reference Standard speakers feature magnetically shielded drivers to eliminate picture interference if the speakers are placed near television screens. The VRS-1 (shown) has a built-in 60-watt-per-channel amplifier with volume, bass, and treble controls. The system includes an 8-inch polypropylene woofer, a 2-inch polypropylene midrange, and an EMIT tweeter. Because most audio signals for video are still mono, the amplifier has a spatial expander/stereo simulator to enhance video sound. Price: \$799 per pair.

The VRS-2 has a 30-watt-per-channel amplifier built in. The woofer and cabinet are the same as the VRS-1's, but the tweeter is a 1-inch polypropylene dome. Price: \$479 per pair. The VRS-3, \$299 per pair, and the VRS-4, \$199 per pair, do not have built-in amplifiers. Infinity Systems, Dept. SR, 9409 Owensmouth Ave., Chatsworth, CA 91311.

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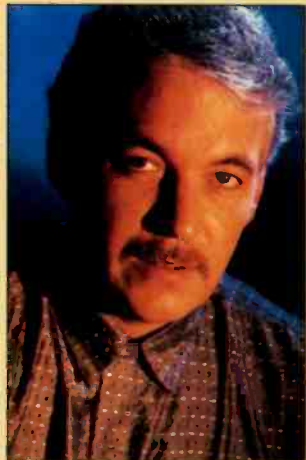
DECEMBER

More New Products on page 17



by *Christie Barter*
& *Steve Simels*

THAT somewhat graying gentleman's face below may not be familiar, but his voice should be. It belongs to



PAUL COX/POLYGRAM

Brooker: always welcome

Gary Brooker, former lead singer of legendary Procol Harum and one of the most soulful vocalists England ever produced. Brooker's new album, "Echoes in the Night" on Polydor, would be welcome at any time, but it's especially noteworthy in that it reunites him with former bandmates **Matthew Fisher** and drummer **B. J. Wilson**. Sad to say, Procol guitarist **Robin Trower** did not make it to the album, but not to worry: guitar chores on at least one track are handled by an-

seraphim" at the wedding of the Prince of Wales and Lady Diana Spencer, she was seen and heard by a television audience that some estimates placed as high as a billion people. Later that year she was made Dame Commander of the British Empire. Since then Dame Kiri has not been willing to limit herself to the repertoire of the concert hall and the opera house.

Among her recent recordings are "Come to the Fair," a collection of folk songs on Angel Records; "Ave Maria," an album of sacred favorites on Philips; and Bernstein's *West Side Story* on Deutsche Grammophon. Her latest is "Blue Skies" (London), a crossover album of popular hits by such composers as Richard Rodgers, Cole Porter, and Irving Berlin. Her collaborator on the album was conductor/arranger **Nelson Riddle**, who died suddenly in October. (See review on page 117.)

In case you were not among the billion people who saw the royal wedding when it was telecast, the official BBC video cassette is still available from the Ballymote Tape Library (119 South Fehrway, Bayshore, NY 11706). And Dame Kiri has not forgotten Handel in his three-hundredth-anniversary year. She is among the soloists in a new recording of *Messiah* reviewed in this issue in "Best of the Month," page 85. □

THIS year's release in the Metropolitan Opera's series of Historic Broadcast Recordings is the performance of Wagner's *Tannhäuser* that was broadcast live from the Met on January 4, 1941. The cast includes **Lauritz Melchior** in the title role, **Kirsten Flagstad** (Elisabeth), **Kerstin Thorborg** (Venus), **Herbert Janssen** (Wolfram) and **Emanuel List** (Landgrave). The conductor is **Erich Leinsdorf**. The set will be mailed to all contributors of \$125 or more to the Metropolitan Opera Fund (Box 930, New York, NY 10023).

Several previously released albums in the Historic Broadcast series are still available for contributions of \$125.

Donors of \$500 or more may receive "Centennial Collection 1935-1959," a five-disc set of highlights from a quarter of a century of the Met's broadcasts. □

CLASSICAL instrumentalists other than pianists, violinists, and cellists often have a rough time making a living as solo artists, partly because their repertoire is limited and partly because the instruments they play just aren't very popular with concert audiences. Flute players have a better time of it than some, perhaps because they seem to be a fairly aggressive breed when it comes to promoting the instrument itself.



Wincenc celebrates the flute

The American flutist **Carol Wincenc** had that objective very much in mind when she recently organized, and played in, an International Flute Festival at the new Ordway Music Theater in St. Paul, Minnesota. "Our goal was to celebrate the flute," Wincenc said, and in so doing she presented three concerts of music for that instrument with the assistance of fellow flute players **Jean-Pierre Rampal**, **Julius Baker**, and **Paula Robison**.

Wincenc has a new Nonesuch recording coming up. It offers a program of American flute music and features composer-pianists **Lukas Foss** and **David Del Tredici** as accompanists in some of their own works. She has also commissioned a new flute con-

certo from Foss that will be premiered next May by the Buffalo Philharmonic. □



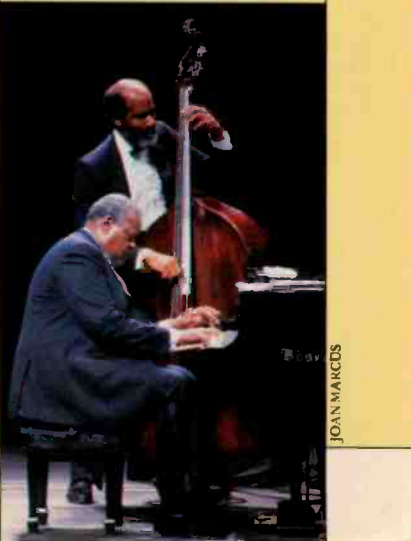
STEPHANIE CHERNIKOWSKI

Rubén Blades crosses over

CROSSOVER—the success of an ethnic or classical artist in the pop-rock-mainstream market—is something eagerly sought by many artists and their record companies. It has even turned up as the subject of a new film, *Crossover Dreams*, starring the Panamanian singer-songwriter **Rubén Blades**. The movie opened recently in New York to resounding critical and popular acclaim, moving Elektra Records to sign on for distribution of the soundtrack album and then to sign a contract with Blades himself.

Already a major figure in Latin American music, Blades is clearly poised to prove that, once again, life can imitate art. Crossover for Blades has already begun—at least as he moves from being a singing star to becoming a movie star. The musical crossover will have to await his first English-language Elektra release. But it's out there, a dream that could come true. □

Pianist Peterson on PBS



JOAN MARCUS



ZOE DOMINIC/LONDON

Dame Kiri and Nelson Riddle

other virtuoso Brooker has worked with in the past—**Eric Clapton**. □

IN 1981 when operatic soprano **Kiri Te Kanawa** sang Handel's "Let the bright



THE third of PBS's *Musical Comedy Tonight* shows airs on November 22, promising cameo appearances by **Kaye Ballard, Florence Henderson, Patti LaBelle, Roberta Peters, Elaine Stritch,** and others. But a good many viewers will be tuning in specifically to catch the late **Rock Hudson** in the final scene from Rodgers and Hart's *A Connecticut Yankee*.

In its Live from Lincoln Center series, PBS is carrying a concert performance of Donizetti's *Anna Bolena* on November 25, with **Joan Sutherland** in the title role, and the following evening an hour-long concert by **Ella Fitzgerald** and **Oscar Peterson** taped at Maryland's Wolf Trap Farm Park.

A studio performance of Verdi's *Falstaff* taped in Vienna will be telecast in the net-

Sunday in the Park with George) and **Stephen Albert** (for his symphony *River Run*). Both are ASCAP members, and the society put on the customary luncheon in their honor.

When ASCAP's president, the lyricist **Hal David**, presented the medals, the recipients accepted with brief speeches that showed becoming modesty. In closing, **Sondheim** said that the playwright **Tad Mosel** (who won a Pulitzer in 1961) advised him not to let the prize go to his head. "If you find that you are beginning to preen, just think of it as a chicken dish: Pullet Surprise." □

BEATLES GO VIDEO! Are you still waiting for a compilation tape of the Beatles' promotional films, like *Penny Lane* or *Hello Good-*

and *Beta Hi-Fi*. List price: \$16.95. □

QUESTION: Which rock star is employed by a prestigious English publishing house? Answer: **Pete Townshend**, formerly of the **Who**. Pete, an editor at London's **Faber & Faber**, has been toiling on his next solo album (currently untitled, but due for Christmas), but he's also taken time to become an author. *Horse's Neck*, just published in the States by **Houghton Mifflin**, is billed as a semi-autobiographical collection of prose and verse pieces. According to *Publisher's Weekly*, it "firmly establishes Townshend as a prose stylist." (Of course, anybody who's ever read his short story enclosed in the Who's "Quadrophenia" album already knows that.) Pete's kept busy lately too by contributing a tune to old Who-mate **Roger Daltrey's** just-released solo effort, "Under a Raging Moon." □

THE late **John Belushi** may be performing in the **Great Comedy Club** in the Sky, but earthly interest in the rotund comedian remains high, as witness the success of **Bob Woodward's** scurrilous biography, *Wired*. Those who prefer to remember Belushi the funnyman rather than Belushi the substance abuser will be pleased to learn that **Warner Home Video** is releasing "The Best of Belushi." A compilation of the comic's best bits from *Saturday Night Live*, including *The Thing That Wouldn't Leave* and his **Killer Bee** sketch, the tape also has one of Belushi's ori-

P. Townshend, prose stylist

ginal **Blues Brothers** duets with **Dan Akroyd**. List price will be \$24.98 in both **Beta**



Belushi's best from Warner

Hi-Fi and **VHS Hi-Fi**, the better to appreciate the **SNL** band. □

Martin Mull and co-author **Allen Rucker** donned stereotypical suburban barbeque outfits to celebrate the release of "The History of White People in America." Originally aired on **Showtime**, this mock docu-



White folks Mull and Rucker

mentary follows a Midwestern couple (**Fred Willard, Mary Kay Place**) as they do the things they love best: enjoy mayonnaise, argue over Thanksgiving dinner, and so on. The tape also features a trip to the fictional **Institute of White Studies** (partially funded by **Tastee Freeze**) and cameo appearances by such noted white people as **Bob Eubanks**, host of TV's *Newlywed Game*. Available from **MCA** in **Beta Hi-Fi** and **VHS Hi-Fi**, the tape lists for \$24.95, about the cost of thirty loaves of white bread. □



The Beatles: vintage TV bits on Video 45

work's **Great Performances** series on **December 13**. **French baritone Gabriel Bacquier** will sing the title role. **Sir Georg Solti** will be the conductor. □

THE American Society of **Composers, Authors and Publishers (ASCAP)** is proud of the number of its members who have won **Pulitzer Prizes** in music, and the society always honors those winners with a luncheon and a commemorative medal. The 1985 recipients of **Pulitzer Prizes** included **Stephen Sondheim** (for his Broadway musical

bye? So are we, but in the meantime, **Sony** is releasing what may be the next best thing, "The Beatles Live." The latest entry in **Sony's Video 45** series, the fifteen-minute tape derives from **Beatles performances** on the legendary English TV show *Ready Steady Go* and includes the boys performing (occasionally truncated) versions of *Twist and Shout*, *Roll Over Beethoven*, *I Wanna Hold Your Hand*, *Long Tall Sally*, and six others. The tape is in fabulous black-and-white (of course), and it's available in both **VHS Hi-Fi**

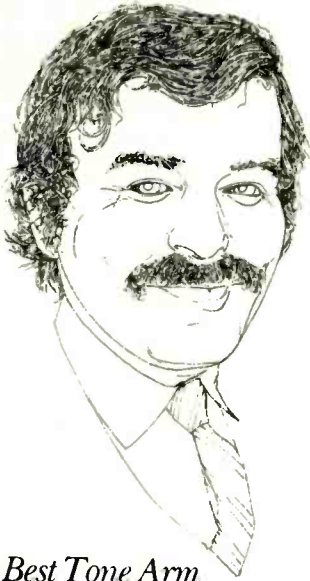


WALTER MCBRIDE/RETNA

UNIVERSAL CITY STUDIOS

MICHAEL PUTLAND/RETNA

by Ralph Hodges



*"The Best Tone Arm
in the World"*

HERE comes that claim again—"This is the best tone arm in the world"—and the claim is being made for a new arm whose manufacturer, SME of Steyning, England, has received the same accolade for earlier designs dating back as much as thirty years. Over that period SME's *only* audio business has been making the "best tone arm in the world," and as proof of its commitment it has never offered more than two models at a time, and rarely more than one.

The new tone arm, the SME Series V, will be distributed in this country by Sumiko Inc., of Berkeley, California. According to Sumiko's director of research and development, David Fletcher (whose influence on the design of the new arm is readily acknowledged by SME), a unique feature of the Series V is that its shaft (or beam) is a tube of complexly varying taper and material thickness that, for the sake of maximum rigidity, is die-cast as a single unit from the counterweight support to the tip of the headshell. In other words, the headshell itself is part of the casting! Quite a fabrication accomplishment—and no doubt highly contributory to the projected retail price of \$1,650. However, does it mean anything

beyond complication? Yes, it means that SME has joined a number of other manufacturers in an uncompromising assault on an insoluble problem: getting a tone arm *not* to vibrate under the influence of the vibrating stylus.

For years now, audiophiles have insisted that the stylus vibrates the arm, stimulating longitudinal, cross-sectional, or torsional resonances and sometimes even shaking the arm in its pivot bearings. Ultimately the arm gives this vibrational energy, colored by all the arm resonances, back to the stylus, and it becomes part of the cartridge's output—a dismaying state of affairs.

On the other hand, merely intelligent people observed that the stylus is virtually massless, sloppily coupled to the arm structure, and undergoing only the tiniest motion anyway, while the arm is in comparison enormously massive, inert, and certainly rigid enough to resist the stylus's gnat-bite agitation. They knew, intuitively, that the audiophile contention could not be so.

Then came the deep-delving instrumentation—low-noise spectrum analyzers and even laser interferometry—and, lo and behold, it *was* so, and the argument settled down to address the point of whether it *was* so enough to be audible. At this time, the demonstrable fact that every tone arm has its own coloration "signature" (no matter how far below the recorded level) puts powerful ammunition in the hands of the audiophile contingent, and manufacturers have taken due note. However, while the pains that SME has taken to reduce tone-arm vibration clearly show sincere concern, the lip service by other manufacturers' marketing departments does not always mean that eliminating this elusive effect was a priority.

The popular tone arms distributed by Linn Products are also among the noteworthy examples of deliberate high-rigidity-beam designs (the Linn arms evidently perform best paired with lower-compliance cartridges since their nontapering shafts suggest relatively high effective mass). Specialty materials—carbon fiber and titanium, for example—have been used in part to achieve the arms' high rigidity, but more often to permit fabrication of

a slenderer, low-mass beam with a rigidity comparable to, though not greater than, that of a thicker aluminum pipe. Some radial-tracking arms, such as the Souther Linear Arm, enjoy a theoretical advantage thanks to having almost no beam to undergo resonance (it's only 2 inches from stylus to pivot in the Souther's case). And the catalog of construction techniques that can enhance rigidity goes beyond these.

Yet rigidity is just half the story. If energy from the stylus is denied the opportunity to expend itself by flexing and twisting the arm beam, it must still go somewhere—preferably to a place where it will be dissipated as harmlessly as possible. Almost any arm-beam material will absorb some vibrational energy through inherent microstructural damping, and some materials will sap quite a bit of it. Wood, for example, is an effective energy absorber, at least at some frequencies, and wood tone arms are making a minor comeback.

The pivot-assembly upright of the SME arm is claimed to conduct mechanical energy downward from the beam, causing it to get lost in the more massive assemblies of the arm base and motorboard (this will happen to a certain extent with almost any arm, but the technique is effective only if bearing contact is intimate). In William Firebaugh's ingenious Well-Tempered Arm, the fluid-filled "dash pot" in which the arm's effective pivot is immersed is reportedly intended to act as a vibration sink. Other arms court the same objective with internal damping and calculated compliances.

I have made no mention of radically new arm configurations and geometries. That's because there are no radically new arm configurations, and there haven't been any for some years. Even the superbly engineered Souther arm has crude antecedents that go back at least to the Fifties. As for geometries, they can perhaps tell us something about why an arm sounds bad, but not too much about why arms may sound different. That story—a crucial one for high-end enthusiasts—is most directly bound up with rigidity and damping. Or such, at least, is the opinion of those who, just now, believe they know. □

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